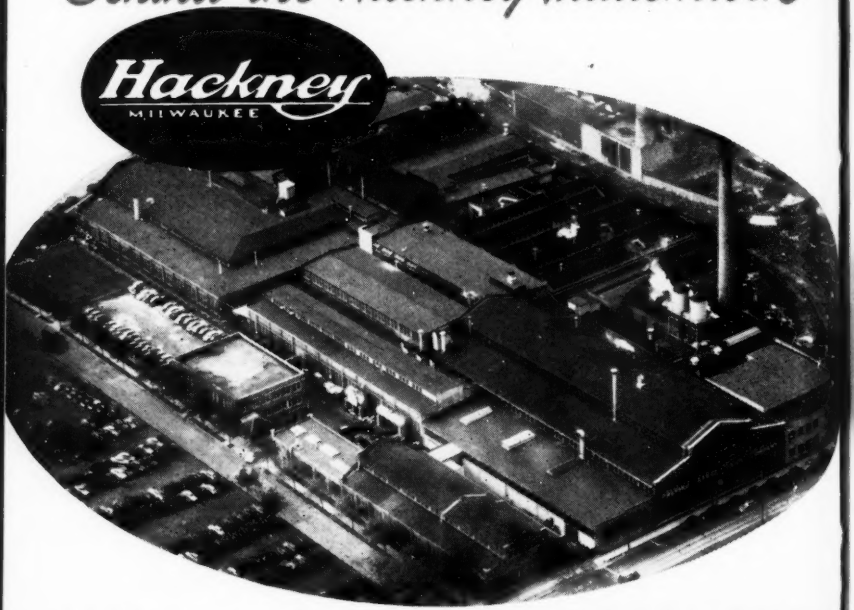
BUTANE-PROPANE News

HEADQUARTERS INFORMATION

MAY, 1951—50c per Copy

Behind the Hackney Trademark



SKILL plus EXPERIENCE

Why you have better Hackney Cylinders

There's unexcelled skill at Pressed Steel Tank Company!

Skill in modern manufacturing! You'll find huge presses, smooth-flowing production lines, exhaustive testing machinery—all manned by highly skilled workmen.

Skill in engineering! In the engineering department you'll find Pressed Steel Tank Company engineers constantly digesting information from the field—constantly working to design even better Hackney Cylinders.

And behind this skill is experience! A vast fund of design and manufacturing knowledge of compressed gas cylinders has been gathered over a period of more than forty-five years.

Add this skill and experience together. The result is a Hackney Cylinder preferred by LP-Gas dealers and distributors over all other cylinders by more than 2 to 1!

An emblem we're proud to display

MEMBER
national LP-GAS PROMOTIONAL program

We're glad we've supported the National LP-Gas Promotional Program right from the start. It has helped everybody in the industry—built sales for everyone. It's growing every day—and we urge everyone to join.

containers for gases, liquids and solids

Hackney
MILWAUKEE

Hundreds of thousands of Hackney Cylinders have gone into service

Throughout the LP-Gas industry no cylinder is as well known or as popular as the Hackney Cylinder. This popularity is extended to the complete line manufactured by Pressed Steel Tank Company—from small 1 lb. industrial type cylinders to 420 lb. giants.

Front Row:

Model RC-20A—a 20 lb. capacity cylinder employed for temporary installations, special applications, demonstrations, etc.

Model PC-20A—another 20 lb. cylinder; used for industrial applications, demonstration purposes, small domestic installations, trailers, cottages.

Model CC-20A—A 20 lb. cylinder for small domestic installations. All 20 lb. cylinders are 12" I.D. x 14" high (excluding height of collar or cap.)

Middle Row:

Model RC-60A—12" I.D. by 38½" high (without cap). Can be charged with 60 lbs. Propane or 72 lbs. Butane.

Model RC-100A—14½" I.D. by 43½" high (without cap). Can be charged with 100 lbs. Propane or 119 lbs. Butane.

Model PC-100A—Identical with Model RC-100A but with permanent collar.

Model RC-40A—12" I.D. by 26¾" high. (without cap). Can be charged with 40 lbs. Propane or 48 lbs. Butane.

Rear Row:

Model RH-300A—24" I.D. by 50" high (excluding hood). Can be charged with 300 lbs. Propane or 357 lbs. Butane.

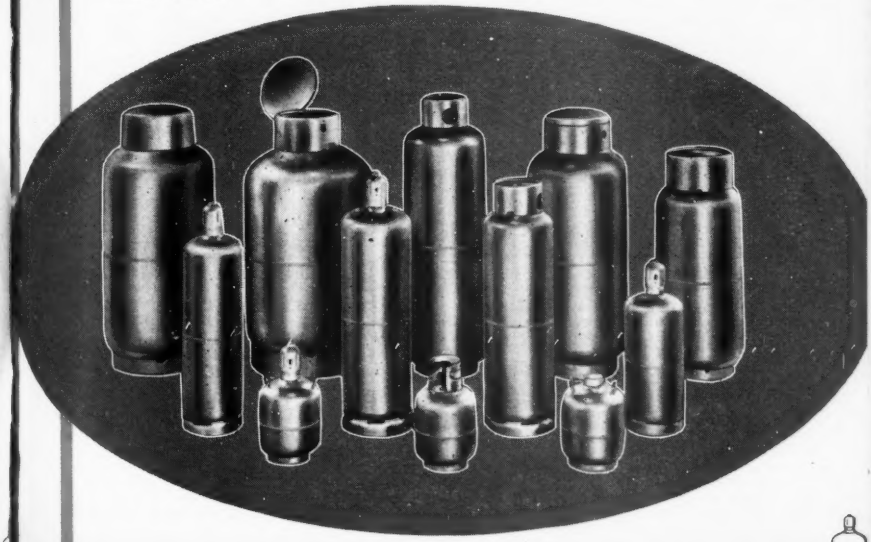
Model PC-420A—29" I.D. by 48¾" high (excluding collar). Can be charged with 420 lbs. Propane or 500 lbs. Butane.

Model PC-200A—18½" I.D. by 41¾" high (excluding collar). Can be charged with 200 lbs. Propane or 239 lbs. Butane.

Model PC-250A—22" I.D. by 48½" high (excluding collar). Can be charged with 250 lbs. Propane or 298 lbs. Butane.

Model PC-150A—18½" I.D. by 41¾" high (excluding collar). Can be charged with 150 lbs. Propane or 179 lbs. Butane.

Many other intermediate sizes available. Write for full details on Hackney LP-Gas Cylinders.



PRESSED STEEL TANK COMPANY

Manufacturer of Hackney Products

1417 S. 66th St., Milwaukee 14 • 1399 Vanderbilt Concourse Bldg., New York 17
227 Henna Bldg., Cleveland 15 • 936 W. Peachtree St., N.W., Room 112, Atlanta 3

Hackney

BUTANE-PROPANE News

MAY, 1951

A JENKINS PUBLICATION

Letters 55
Comment 59
Beyond the Mains 63
Bake Ovens Help Feed the Mass Market.....Paul C. Grimes 69
Three Basic Steps in Selling Commercial Appliances.Paul Inskeep 77
The Four Freedoms of the Gas Dryer.....E. P. Hamilton 81
Sell Incineration .....J. G. Dierkes 85
New Approach to Selling Water Heaters.....A. B. Cameron 88
Practical Management of an LP-Gas Business, Chapter 2, How Much Capital Do You Need?.....C. C. Turner 94
Calendar 110
Exhibitors at LPGA Convention..... 112
Products 130
Servicing Thermostats: Ranges.....M. B. Gault 142
Dealers, Utilities Join Hands at Builders Show..... 155
Power 157
Bus Drivers Go to School.....Carole D. Lindgren 158
Current News from Washington.....Larston D. Farrar 165
First Meeting For Southeast District.....Paul Lady 168
Missouri Dealers Given Selling Tips.....Craig Espy 173
The Trade 174
Why Winter Shortages? Asks LPGA Board..... 180
Associations 184
Classified 193
Advertisers 195-196

Publication Office

Los Angeles (4)—198 So. Alvarado St. Phone DUnkirk 7-4337

Branch Offices

New York (18)—11 W. 42nd St. Raymond M. Schuster, District Manager. Phone CH 4-1969.
Chicago (3)—1064 Peoples Gas Bldg. David Carmen, District Manager. Phone WAbash 2-2589.
Cleveland (22)—19718 Lanbury Ave. James K. Gillam, District Manager. Phone WY 1-2587.
Tulsa—P. O. Box 4055. Craig Espy, District Manager. Phones Business—2-2414; Res.—7-9807.

May, 1951 Volume 13 Number 5

BUTANE-PROPANE *News* is published monthly. Copyright 1951 by Jenkins Publications, Inc., at 198 So. Alvarado St., Los Angeles 4, California. Subscription price: United States and U. S. Possessions, Canada, and countries in Pan-American Postal Union (in advance), 50c per copy, one year $2; two years $3. All other countries one year $4; two years $7. Entered as second-class matter May 29, 1939, at the post office at Los Angeles, California, under the Act of March 8, 1879. Member of Audit Bureau of Circulation, Controlled Circulation Audit, Liquefied Petroleum Gas Assn., National Butane-Propane Assn.

Publishers: G A S, The Magazine of the Gas Utility Industry; HANDBOOK BUTANE-PROPANE GASES; THE BOTTLED GAS MANUAL; Annual BUTANE-PROPANE *News* CATALOG; B-P *News* BULK PLANT DIRECTORY; WESTERN METALS.

Letters

Gentlemen:

What compound is used for spark-proofing concrete?

Is black steel pipe satisfactory for underground lines for propane vapor not over 20 lbs. if it is covered with asphalt? Is galvanized O.K.?

J.W.T.

North Dakota

We have inquired of a number of LP-Gas distributors, architects, and contractors and none of them has ever come in contact with this.

It is pretty hard to prepare any surface which would be spark-proof. It is easy for friction to create a spark even on a surface much smoother than concrete.

Both black and galvanized pipe are satisfactory for underground LP-Gas lines when covered with asphalt or any other corrosion-resistant material.—Ed.

•

Gentlemen:

One propane gas company here is delivering gas in quantities of 100 to 1000 gallons—the size of the tanks, and all the gas delivered to the domestic consumer is gauged by a meter. The other company is filling the same sized tanks on the percentage basis and does not have a meter.

The temperature in Oklahoma varies as much as 60 degrees in 24 hours. Which way do you consider the proper way to deliver gas in order to give the customer the more correct measurement of the amount of gas he is buying?

G.M.H.

Oklahoma

We interpret your letter to mean that the first company uses a liquid meter on his truck to measure the fuel as it is delivered to the consumer tank; and the second company gauges the consumer's tank with the liquid level gauge on the tank, then fills the tank and again gauges the contents, after which the quantity delivered is determined from the difference in the two readings.

Unless the temperature of the liquid delivered to the consumer tank is determined and a correction made, both methods of delivery will be affected equally by the variations in temperature.

If the meter has been installed properly so no vapor can pass through it and if it is periodically tested for accuracy of measurement, we would expect it to provide a more exact determination of the fuel delivered to the customer than the gauging method.—Ed.

•

Gentlemen:

We believe that a gallon of butane gas, at our altitude and temperatures should develop at least forty cubic feet of gas.

I am advised that the local gas company uses a vaporizer in transferring gallons to cubic feet; our altitude is about 7650 feet; the gas lines are below frost, but the meters are exposed so that the temperature at the meter would have a variation from high temperatures in the day to low temperatures at night. I should like to know how often meters should be proven.

H.M.H.

Colorado

Since gas volume varies in accordance with pressure and temperature, a definite temperature and pressure must be stipulated when defining a cubic foot of gaseous fluid.

"A standard cubic foot of gas is that quantity of gas, saturated with water vapor, which at a temperature of 60°F and a pressure of

---

• **BUTANE-PROPANE *News* welcomes letters from our readers, but it must be understood that this magazine does not necessarily concur in opinions expressed by them.—Editor.**

Hydrocarbon	Chemical Symbol	Lbs. per Gal Liquid @ 60°F	Boiling Point °F	Cu. Ft. Gas per Gal. Liquid @ 60°F & 14.7 psi	@ 60°F & 11.06 psi
Normal butane	C_4H_{10}	4.86	31.1	31.79	43.34
Iso-Butane	C_4H_{10}	4.69	+10.9	30.65	40.82
Propane	C_3H_8	4.23	—43.8	36.45	48.55

30 inches of mercury, occupies 1 cubic foot. (Temperature of mercury = 32°F)."

What is termed "The low-pressure-delivery cubic foot" is as follows:

"When gas is delivered to a consumer at low pressure (less than ½-lb. per square inch gauge), and no definite unit of measurement is specified by contract, the unit of measurement is that quantity of gas which occupies one cubic foot under the temperature and pressure conditions existing at the meter."

Altitude has the effect of decreasing pressure and at 7650 feet elevation, the atmospheric pressure will be approximately 11.06 lb. per square inch absolute (22.51" mercury column) instead of 14.73 lb. per square inch absolute which is equivalent to the 30" of mercury used in the definition of a standard cubic foot.

Nearly all butane-propane gases contain all three of the following hydro-carbons in varying proportions depending on the supply. Commercial propane may contain 5 to 10% of the butanes. The commercial products may contain small percentages of ethane and pentane also. Following is some pertinent data on these three hydrocarbons including the number of cubic feet of gas which will be formed from a gallon of liquid under the standard conditions set forth above and also when measured at 60°F and 7650-foot elevations.

The requirements for proving meters vary in different localities and for different gases. There is a law in California which requires meters to be proven at least once in eight years. Meters handling LP-Gases should be approved for use with these gases, since LP-Gas has a tendency to dry and/or destroy certain diaphragm materials used in meters for other types of gas.—Ed.

•

Gentlemen:

In unloading a tank car of propane, after removing all the liquid from the car, would it be an advantage to pump the vapor from the tank car through the bottom opening of our storage tank and allow the vapors to be absorbed by the liquid? In doing such we would have to change piping on our bulk storage because at the present we are unloading both liquid and vapor into the top of the storage tank.

If a saving can be made I would like to do it.

V.G.M.

Michigan

When the vapors are compressed, they are heated and they will not condense in the storage vessel until they cool. Therefore, the pressure in the storage tank tends to build up. This in turn reduces the rate of transfer and increases the power required to operate the compressor or vapor pump. If these vapors are bubbled through the liquid, the heat is absorbed by the large volume of liquid and the vapors are condensed. The heat absorbed by the liquid tends to raise the temperature slightly and also the pressure but not as much as it will if the vapors are pumped directly into the vapor space.

It is not necessary to pump directly into the bottom opening of the tank. Any connection which terminates at or near the bottom of the tank such as the liquid withdrawal line will suffice. Care must be exercised in arranging the valves and piping, however, so that liquid cannot reach the inlet of the compressor where it might enter the compressor and damage it. It is suggested that a check valve be inserted in any line which connects the compressor or vapor pump with the liquid space in the storage vessel.—Ed.

•

Gentlemen:

I have converted my car to propane fuel. It is a 1949 Packard with a 125 h.p. engine. I only get 9 miles per gallon and have had considerable loss of power. On a long pull, the car coughs back into the carburetor with such force that it split the air cleaner. It does not do this on gasoline.

I would like to know how much I can raise the compression and to

have your advice as to how to do that. Do you know any correction for the backing into the carburetor?

G.T.C.

Illinois

In regard to the conversion of your automobile, your Packard is popping back in the manifold for the same reason that engines pop back on gasoline—your wide-open throttle mixture is too lean to burn at the proper speed. You should correct this at once to avoid burned valves.

As you do not give any installation details, we can only guess at the possible cause, but somewhere in your fuel system you will find something that prevents the delivery of sufficient fuel to make the proper power mixture. It could be a flattened fuel line between the tank and the regulator, clogged fuel filter, regulator mounted above the level of the radiator tap, or a stuck economizer in the carburetor. Or, if you are trying to operate on tank vapors instead of using a liquid withdrawal system in this cold weather, it could be insufficient tank capacity.

Correcting your fuel supply problem should increase both power and economy. Raising the compression ratio by planing or milling 1/16-inch off the head will give a further improvement, and if you have not already done so, cutting off the manifold heat will give further gains.—Ed.

•

Gentlemen:

We have received numerous inquiries as to whether the use of LP-Gas in a home would be the cause of articles of clothing becoming faded; more especially the color blue.

If the above is possible, won't you please advise us with respect as to why this fading would take place?

E.A.B.

North Carolina

We do not know of any reason why the use of LP-Gas in a home would be the cause of articles of clothing becoming faded. The products of combustion are the same as for any other fuel. If, however, previous fuels such as wood, coal and oil were used they were burned in vented appliances.

LP-Gas, if used in an unvented heater, will, of course, discharge the products of combustion into the house. These products carry up to 15% moisture and it is possible the moisture could have some effect. However, with vented heaters, we see no reason why LP-Gas should cause fading.—Ed.

Gentlemen:

We are in the process of installing gas for a bank building that will carry a maximum load of 2,100,000 Btu per hour. We would like to have your advice and recommendation on the proper hook-up of the gas system. We plan to use two 1000-gallon underground tanks, manifolded together and the main line will be 3 in. inside diameter running for approximately 30 ft., and branching off in 2-in. pipe to a 1,400,000 Btu boiler and a 150,000 Btu water heater. Another pipe branching off at the same point will be 1½-in. pipe which will supply the balance of the load.

The 1½-in. pipe continues on to supply commercial ranges and water heaters in the kitchen and reduces down to ¾-in. line to supply doctors and dentists offices with Bunsen burners. The ¾-in. pipe is the smallest pipe used in the building.

What would you recommend we should use for regulating equipment and the manner in which it should be connected to the tanks and from the tanks to the 3-in. main, which would run out to the location of the tanks. Our gas has a rating of approximately 3000 Btu per cu. ft.

G.F.C.

Florida

It is recommended that the vapor outlet valves on the two tanks be manifolded to a common header before the regulator, or regulators if more than one is used. The tanks will operate as a single unit when connected in this manner.

We do not know the type and make of regulator which you use, but you can easily select the proper regulator by referring to the manufacturer's regulator flow charts. If your supplier does not have a regulator large enough to handle 700 ft. of butane per hour, it may be necessary to manifold two of them from the common supply header between the two tanks to the line which serves the bank. They should be the same size and make regulator and set to deliver fuel at the same pressure.—Ed.

Comment

ANOTHER fine example of the excellent results which may be obtained through the cooperation of LP-Gas dealers with natural gas utility companies may be found in the story of the Central Pennsylvania Builders' Show, printed elsewhere in this issue.

The co-sponsorship of cooking classes, regardless of how small the consumer area, will always draw a much larger attendance than individual presentations, by virtue of the greater cross section of population the industries may reach. We believe that the Central Pennsylvania story is one in which the gas utility company in your area will be interested.

•

In the March issue of Texas Butane News Claude D. Ribble, president of the Texas Butane Dealers Assn., set forth a plan for the LP-Gas industry as the nation enters a period in which he believes war-like conditions will exist.

The salient features of Mr. Ribble's pertinent editorial follow:

We must prepare ourselves for a very long period of war-like (not war-time) conditions.

During this period we should make all possible efforts to hold our customers . . . we must treasure every customer and go to extreme lengths to keep him pleased and satisfied.

Although we may not be able to serve them, we should not let down for a minute in our contacts with potential new customers.

All through World War II the electric industry continued to woo the potential market even though it was unable to expand. We did not maintain our contacts with this potential market and, when condition returned to normal, a great many of those customers we should have had were taken by our competitor.

We must plan and prepare for a rush of new business when normal conditions return.

We must not let down in our public relations efforts. We must think and plan as if normalcy was just around the corner.

We will feel controls and restrictions. We expect them. But they can be bearable and we can make them so.

If we stand firm, if we plan and act logically, if we keep calm and look ahead to the tomorrow that must eventually come; if we cling together in common cause we will come through.

•

The LP-Gas dealer is in the same position as the utility company. He provides a basic service to the home and he must assume the responsibility his position entails.

He should assume that his customers know nothing of their new LP-Gas installations and appliances and he should educate them to proper use at the outset.

He should generate confidence in the product and still show them to use it with respect. The customer is generally more uncertain about himself than he is about his new servants, LP-Gas appliances. Reassurance and explanation of the function of his installation are called for.

If a service call indicates there is any real cause for immediate attention, the dealer must go, come hail or storm at midnight. It is through complete reliability and the practice of understanding that the dealer establishes himself as a responsible member of the community.

•

Gas appliance buyers benefit from "the most widespread program of industry regulation in consumers' in-

terest on the North American continent" when they purchase an AGA-approved appliance. That's what Howard B. Noyes, vice president of Washington (D.C.) Gas Light Co., told delegates to an American Standards Assn. conference in New York recently.

Mr. Noyes pointed out that 95% of all gas appliance manufacturers are constructing their products to conform with American Gas Assn. quality and safety requirements, and that 30,000 different types of certified gas appliances are now available to consumers. This high standard of quality is due to the vigilant attention of keeping the level high by the Approval Requirements Committee of the American Standards Assn., and by various interest groups—LP-Gas associations, American Home Economics Assn., U. S. Bureau of Human Nutrition, National Board of Fire Underwriters, etc., Mr. Noyes said.

Furthermore, Gasman Noyes reported, today's modern gas range, with thermostatic control and automatic burner ignition can be purchased for about the same price as was a similarly sized model of 25 years ago, which had none of the modern features.

•

The LP-Gas industry is now launched upon a highly competitive program with other fuels. This is the result of the pioneering spirit and progressive outlook of its leaders, from the producing plant to the dealer. It is also due to the faith of the appliance manufacturer, the man who has spent hundreds of thousands of dollars in research and engineering, laying the groundwork for the production of today's wide selection of household appliances.

Quantity sales and craftsmanlike installations are not only capturing the regional market, but gaining general public acceptance.

The wide variety of attractive, automatic and completely safe units, appealing to the individual taste and adaptable to every domestic and commercial job provide the opportunity to sell appliances and fuel on a unified basis that will have gas performing every domestic job.

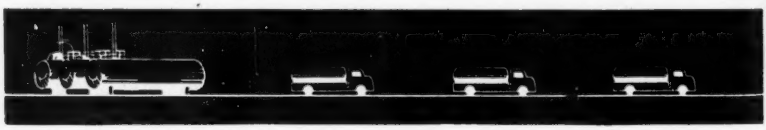
From now on you won't be selling strictly specialized service and equipment. The field has been pioneered. You are also selling more than single appliances. You're selling pushbutton life—beyond the mains.

So sell 'em "unification."

•

A New York Times business writer draws attention to the increase in "packaged" home sales in which the builder includes a variety of household appliances in the purchase of new homes. In a typical instance in Ohio, through the enterprise of an electric salesman, 500 homes each will have an automatic washer, electric clothes drier, electric range, electric refrigerator, electric garbage disposal unit, and kitchen ventilating fan.

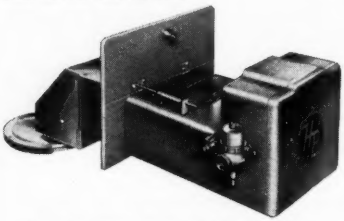
Don't forget, though, that you also can sell a packaged job, the way it was done in the outskirts of Richmond, Virginia, in a 526 apartment unit. There LP-Gas for house heating, water heating, cooking and refrigeration provides comfort with economy.



NEW PRODUCTS

HANDLEY–BROWN OFFERS TWO NEW PRODUCTS

Now included in production is the new model fuel door conversion burner for LP-Gas, recently announced by Handley-Brown Heater Company, Jackson, Michigan. This burner is designed and built for use with LP-Gas.



Handley-Browns new model #3FD-10-IL Fuel Door Conversion Burner for LP-Gas.

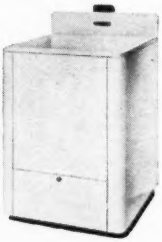
Designed to give maximum efficiency at all inputs, the Handley-Brown Fuel Door Burner has a wide range of inputs; 60,000 to 150,000 B.T.U.'s for LP gas. Without using flame spreaders, the Handley-Brown "Inferno" Burner head speeds the heat directly to the heating surfaces. Fits over oil or stoker installations without removing or changing them. Equipped with thermicouple-type pilot. Easy to service, as all parts are quickly reached or entire Burner can be removed in less than ten minutes. Fits furnaces, boilers. Completely automatic. Write for details.

NEW WATER HEATERS

Production of a whole new line of fast recovery water heaters was also announced by the Handley-Brown firm. Built in 20, 30 and 45 gallon models, the new Handley-Brown Speedmaster water heaters are furnished in two series—the Imperial Speedmasters (the deluxe models) and the Standard Speedmasters (the low priced line). Imperial models are equipped with NAX HIGH TENSILE STEEL TANKS for life-time service. Equipped with new UNIFLAME "life-time" burner. Write for information.

Smashing all previous records with LP dealers all over the country.

The HB table top heater, 30 gallon capacity for LP gas is built to standard kitchen cabinet dimensions (36" high x 24" wide x 25" deep). Supplies all the hot water needed in an average home. Real economy. Real efficiency. It's beautiful, too—Baked white enamel finished with porcelain top.



Controlled Gas Bills →

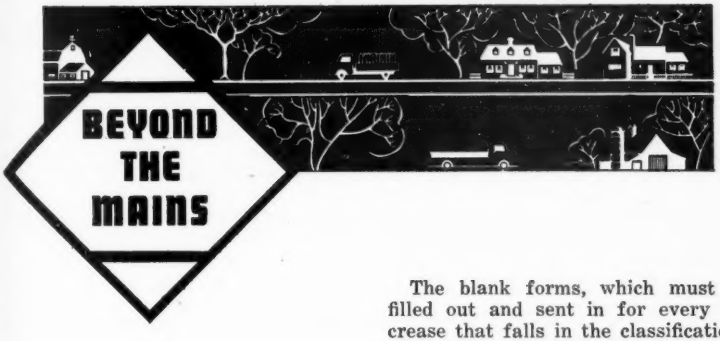
At right is the famed Handley - Brown "U" tube LP water heater—heat passes through water twice—real economy. Heavily insulated. Lowest operating cost of any heater on market. Investigate NOW.

MEMBER
national LP-GAS PROMOTIONAL program

Stop at Booth 146 The LPGA Trade Show, Stevens Hotel, Chicago, May 7-10 and let us tell you the profit features of our products for dealers, distributors and jobbers.

HANDLEY–BROWN HEATER COMPANY

LP-Gas Division — Jackson, Michigan



BATTLE lines are now drawn surrounding the secretary of the treasury's recommendation that excise taxes on gas, electric and oil appliances be increased 150%.

Walter F. Muhlbach, president of the Institute of Cooking and Heating Appliance Manufacturers and director of research of Florence Stove Co., has forwarded to Congress a statement setting forth the Institute's objections to the proposed 25% excise tax on appliances.

In addition, Mr. Muhlbach requests the repeal of the existing 10% excise tax on such goods on the grounds that it is discriminatory—since it is not levied on all manufactured consumer goods.

He suggests that an "Emergency Tax" be levied on all manufactured consumer goods, sufficient to raise the needed revenue, but at the lowest possible rate and thus spreading the burden more broadly and equitably.

Wage, Salary Increase Forms

Printed forms for reporting wage and salary increases under General Wage Regulation 6, along with instructions for completing the forms, have been released by the Wage Stabilization Board.

The blank forms, which must be filled out and sent in for every increase that falls in the classifications covered by the wage regulation, are available in quantity at all of the 50 regional and district offices of the Wage and Hour Division, U. S. Dept. of Labor, currently acting as field offices for the Wage Stabilization Board.

Use Most Abundant Fuel

In a move to insure the most effective use of available fuel supplies, the Munitions Board, Department of Defense, has asked the Army, Navy, and Air Force to require that all military installations and industrial facilities under military sponsorship use the type of fuel most abundant in their localities.

A policy memorandum sent to the three services pointed out that coal generally is the most easily available fuel, except in the West Coast states, and it should be used as a rule. Natural gas was rated next in preference, and oil third.

Use of liquefied petroleum gases should be limited to areas where transportation is no problem, the Munitions Board declared. Butane, it said, is required for the synthetic rubber program and for certain high octane gasolines. Propane is still available, but the shortage of pressure tank cars is delaying deliveries

and this condition is not expected to improve.

Where installations have equipment which can use more than one fuel, the board stated, arrangements should be made to burn the fuel most readily available in the area, with preference to coal, natural gas and fuel oil, in that order.

The program is aimed at giving maximum support to the overall defense effort and reducing the possibilities of fuel procurement difficulties. It also envisages the increased availability of liquid fuels for combat forces.

New Pricing Form

A new form of pricing—Ceiling Price Regulation 17—for gasolines, naphthas, fuel oils and liquefied petroleum gases has been announced, effective April 5, by the Office of Price Stabilization, replacing the old General Price Ceiling Regulation that has been in effect since Jan. 25.

The new regulation covers sales at all distribution levels, except service station sales at retail. But thus removing these products from the General Ceiling Price Regulation—which, in effect, was a "freeze" on price, instead of allowing any kind of flexibility, OPS declared that it has provided the liquefied petroleum gas and related industries "with pricing methods which conform, within the framework of general price controls, to customary practices in the industry."

Certain sales or exchanges are excluded from the coverage of the regulation. Sales between affiliated corporations and exchanges of petroleum products between refiners or other petroleum sellers are excluded.

The new regulation establishes a seller's ceiling price for a petroleum product at the highest price charged by him to a purchaser of the same class for a product during the period Dec. 19, 1950, to Jan. 25, 1951, inclusive. Where a seller has no price based upon an actual sale during the base period, his ceiling price is predicated upon his highest offering price during the base period to a purchaser of the same class.

The regulation makes provision for upward adjustment of individual seller's prices:

1. Where a seller's ceiling price is inconsistent with his customary price practice or ceiling prices are not in their customary relationship to other prices in his market area due to temporary conditions;

2. Where a seller demonstrates that an existing ceiling price threatens a local shortage in the supply of a petroleum product, and such shortage can be alleviated consistent with the purposes of the Defense Production Act of 1950, and

3. In connection with government contracts, where a seller believes that his ceiling price impedes the defense program.

Complete copy of the new regulation—CPR 17—may be obtained from OPS, Washington, 25, D.C.

Materials Division Offers Help

Secretary Chapman has announced that, although formal priorities assistance authorized under NPA Order M-46 is now limited to MRO (maintenance, repair and operating) materials and oil-country tubular goods, PAD's Materials Division is prepared to give informal assistance in urgent cases. Individuals or firms in urgent need of assistance should write, wire, or call by telephone Frank A. Watts, director of the Materials Division, PAD, Washington, 25, D.C., or chiefs of branches dealing with the particular items involved.

BUTANE-PROPANE *News*

DOMESTIC

AND COMMERCIAL

APPLIANCE

ISSUE

Gas Has The Selling Edge!

LIQUEFIED petroleum gas appliances are the practical answer to big commercial and household demands for comfort, efficiency, and smooth, uninterrupted service beyond the mains.

There is only one fuel that accomplishes the operational unification of heating, cooking, water heating, refrigerating, baking, deep-fat frying, clothes drying, and incinerating appliances. That fuel is LP-Gas.

The inflexibility of other fuels gives LP-Gas the selling edge. In each of the appliance fields this fuel provides hot competition for electricity, oil, coal, and wood. It is not enough, however, to sell one appliance to a home or restaurant—not enough if you would hold the load for gas. But when a range-only customer is sold an automatic gas water heater, for instance, the position of LP-Gas becomes impregnable in terms of the user's investment and the superior, economical performance of the units involved. As each additional appliance is added, the dealer's profit increases and industry reputation advances.

In view of rising costs, the overcast of vital material shortages, and high-geared competitive propaganda, dealers may well stop and do some old-fashioned thinking, consider the strength and weakness of their business practices, and take off from there to a new prosperity.

The editors believe the industry's weakest line of defense is the single-appliance user. Make it a point of attack! Make an on-the-spot check of your old customers' appliances — sell adequate replacements — but bear down on the second appliance. The second-appliance user is a believer. The third-appliance user is an enthusiastic salesman!

The wide choice of attractive, automatic and completely safe units available provides the opportunity. The competition cannot match them in performance and year-round service.

The competition can't match them in sales!

—EDITOR

BAKE OVENS

Help Feed the Mass Market

By Paul C. Grimes
Sales Manager, The G. S. Blodgett Co., Inc., Burlington, Vermont

IN the field of baking and roasting ovens, although the LP-Gas dealer may occasionally run into a job in which a mechanical (revolving tray or rotary) oven is desirable, in the main he will find his market in two types of ovens—the cabinet and the sectionally-fired.

The cabinet oven generally consists of four baking decks heated by one set of burners and with one heat control. It is made by a number of manufacturers and usually is offered in two deck sizes to accommodate either one or two 18" x 26" standard sheet pans. Several manufacturers also produce this unit as a roast oven or a roaster-baker combination. This is accomplished by substituting one or two large roasting doors for each two standard baking doors and provides a roasting compartment approximately 14" high.

The cabinet oven is considered obsolete for two reasons: First, with only a single heat control and a single source of heat, all four decks must be operated at the same temperature, thus permitting no flexibility; and second, the difficulty of obtaining closely uniform heat distribution when four decks are heated by one set of burners requires the baker to frequently check his goods and to shift pans to attain uniformity of product. This is a direct addition to labor costs.

However, due to the low selling price of the cabinet oven, it is still in demand, particularly by small operators and owners of camps and resorts which are open only a few months a year and who wish to keep their equipment investment at a minimum.

The sectionally-fired oven is truly a modern kitchen tool. Each section is actually an independent unit with a burner and heat control for each baking or roasting deck. One manufacturer offers in addition a section with a burner and control

for each two baking decks. Every manufacturer constructs his units so that one section fits on top of another, and so provides for addition of sections whenever increased business calls for greater productive capacity.

This type of oven is more sturdily constructed and more heavily insulated than the cabinet oven and the individual burner and thermostat offers accurate temperature control and uniform distribution of heat over the entire

The cooking bank (above) with one stock kettle handles 25,000 meals monthly. Equipment shown consists of Blodgett oven; two solid-top skeleton ranges, with one open burner extension between them, and one salamander broiler.

baking deck. The baker can load his oven and forget about it until the baking time is up, freeing him to devote his entire attention to the other aspects of his work.

It is well and necessary to know about the technical aspects of a bake oven so that you can answer questions by potential users. Details of this nature are fully covered in manufacturers' catalogs, specification sheets and literature. However, all the technical knowledge in the world is useless until a customer has been convinced that a bake oven is something he should have and something that

. . . Bakeries

will represent a profitable investment to him.

Let us examine for a minute what a baker, restaurateur, or hotel man, or the manager of the food department of a hospital or institution, is thinking about. In the case of the commercial operator, it is first how to increase sales by increasing the total number of patrons and the dollar average of unit sales or cutting costs through labor savings or space savings or savings on material by elimination of waste and spoilage. These taken individually or collectively are all really the same thing. They all produce extra profits at the end of the year.

The institutional manager, although he does not have the profit motive as such, is concerned with serving the highest quality and the most nutritious food that his budget will permit and is also interested in cutting costs in the same manner as the commercial operator. Let us then examine certain specific markets open to the LP-Gas dealer.

It has been the experience of the writer that in many towns served by the LP-Gas industry, there still exist in retail bake shops a substantial number of old-

Above: Typical bakery operation showing sectionally-fired bake ovens with four separate heat controls.

You Have A Market

Where America Dines

THE LP-Gas industry has made great forward strides in the past 10 years but still greater opportunities of progress lie in the rich field of commercial feeding in which only the surface has been scratched. It has been estimated that there are 210,000 mass feeding establishments located in areas served by LP-Gas and this figure does not take into consideration many additional eating places on the fringes of large urban centers and which depend on LP-Gas for their fuel.

This market is composed of restaurants, hotels, hospitals, schools, bake shops, camps, food processors, all types of public and private institutions and many others—in short, any place that cooks or bakes foods for service to the public, either for consumption on or off the premises, whether for profit or not.

One commercial installation equals a sizable number of domestic units with, of course, a lower cost of distribution, service and billing. In addition to the profit from volume gas sales, the LP-Gas dealer has an opportunity for additional profits from the sale of appliances that go to make up a mass feeding establishment. These include baking and roasting ovens, deep fat fryers, steamers, steam-jacketed kettles, ranges, broilers, gas toasters, utility stoves, food warming and holding equipment, coffee urns and equipment for water heating and space heating.

fashioned brick peel ovens which are being fired by either coal or oil. Due to their nature, these ovens are never allowed to completely cool down and so consume sizable amounts of fuel. While the baker may be able to justify his fuel costs with a large volume of business during the height of the vacation season, during the off-season these costs tend to eat up his profits.

Dealers Can Do Real Service

Here, indeed, is a fertile field for the LP-Gas dealer to do a real service to the bake shop by replacing this cumbersome and outmoded equipment with modern sectionally-fired gas ovens. By being able to fire only the sections required for the business of the day, fuel bills will be kept to an absolute minimum, substantial savings will be made on floor space, employe fatigue will be greatly reduced by eliminating the need for use of the long wooden peel in loading and unloading the oven; and in addition to these benefits, with multiple heat controls, the baker can simultaneously bake a variety of goods requiring different baking temperatures, which will insure a continual flow of varied and freshly-baked products to his sales counters. His production can be closely aligned with the demand of his customers. These all add up to greater profits.

In the retail bake shop, we are concerned with ovens solely for the purpose of baking. But, when we go into the field of the restaurant, hotel or institution, the uses of a sectionally-fired oven are broadened to include not only baking but also roasting and general cookery.

Baking-on-the-premises is a distinct asset to any food operator. It allows close control of quality and the restaurant that does its own baking has a different and distinctive atmosphere. Delicious, freshly baked hot rolls add immeasurably to the pleasure of a meal and are a big factor in bringing customers back.

Everyone is familiar with the gelatinous, unattractive looking commercial pies served by far too many of our restaurants. Although some customers eat these products, it is mainly to satisfy hunger and the restaurant will never be recommended for fine pies or desserts.

Contrast this with the restaurateur who features a wide selection of eye-appealing and appetite-appealing, home-baked pies, cakes and pastries. The obvious quality of the dessert catches the eye of the customer and he often finds himself ordering some even though he had not planned on doing so. The dessert, plus a good cup of coffee, is the last impression that the customer carries away from a restaurant and if these two items have been good, he will not only return to that restaurant but will recommend it to his friends.

Many restaurants have built a reputation on a specialty dessert which has become so well known that it becomes almost mandatory to order some when in that particular place.

Let us see what all this has to do with profits; first, home-baked des-

Commercial Gas Appliances

Baking ovens	Water heaters
Roasting ovens	Broilers
Ranges	Utility stoves
Deep fat fryers	Food warming equipment
Steamers	Coffee urns
Steam jacket kettles	Toasters

Space heating units

serts will greatly increase over-all sales and check averages; and second, they will create customer satisfaction which will cause patrons to return and to bring their friends, thus increasing the over-all volume of business. Both of these add up to increased profits.

Many successful operators also augment their sales and profits by featuring their premise-baked goods to take out and frequently operate retail bakery counters doing a substantial volume of business.

Some restaurant men will explain their failure to do their own baking on the scarcity of trained bakers or will point out that the volume of baking which they would expect to do would not be sufficient to hire a full-time baker. To combat such arguments, it might be pointed out that a number of the country's leading food processors today offer a wide variety of high quality pre-mixes which, with the simple addition of water or milk or sometimes yeast, turn out excellent rolls, biscuits, muffins, cakes and even pies. Any of the existing kitchen help can follow the simple instructions and give the restaurant that distinctive touch provided by quality premise-baked goods.

However, the production of baked goods is only one function of the sectional oven in the restaurant. While not in use for baking, it can be kept busy producing fish, meat, poultry, macaroni, baked potatoes, casserole dishes of all kinds, profitable meat loaves, au gratin dishes, cup custards and a wide variety of puddings, to mention just a few items. Thus the oven can be kept busy all day long.

In discussing the use of gas-fired, sectional roasting ovens, one erroneous impression should be corrected. A certain manufacturer of commercial cooking equipment designed for use with a competitive fuel has featured in his advertising those jobs in which his equipment has produced large savings by a substantial reduction of meat shrinkage. The inference to be drawn from these advertisements is that it was the fuel being utilized which produced the savings claimed. This is not so. Numerous

tests made by leading authorities have all indicated that the fuel used for roasting is a matter of little or no consequence insofar as it affects shrinkage. In many of the tests, the advantage was slightly in favor of gas, particularly in those temperature ranges generally acknowledged to be best for meat roasting.

Although many factors such as moisture content and fat content of the meat affect shrinkage, when we consider two identical pieces of meat, the only important factors are time, temperature and the capacity of the roasting equipment.

In many cases, a restaurant or hotel does not provide roasting equipment of sufficient capacity to allow the chef to meet the production schedule called for by the menu. In order to make up for his lack of capacity, he invariably hurries his roasting by using a temperature of 500° or 550° and the resulting excessive shrinkage becomes a highly costly item of expense to the operator.

Meat Shrinkage High

Tests have indicated, for example, that certain cuts of beef roasted at 300° will have a shrinkage of approximately 10%. If the same meat is roasted at 450°, the shrinkage jumps to about 30%. To apply this to a restaurant which roasts an average of 75 pounds of meat per day, the 10% shrinkage, when roasting is done at 300°, would be 7½ pounds. The 30% shrinkage produced at a temperature of 450° would amount to 22½ pounds, or 15 pounds of excess shrinkage per day. Assuming

Commercial baking and roasting installations offer dealers large profits through appliance sales, low distribution costs, and less service.

that the meat costs 50 cents a pound, there is an unwarranted waste of $7.50 per day in that kitchen. For a week, there is a waste of $52.50. For an average month, there is a waste of more than $225. The year's total waste is better than $2700.

Right Oven Insures Saving

The restaurant man should be most glad to purchase an additional sectionally-fired roast oven if it will increase his capacity so that he can roast at proper temperatures and be assured of saving such a sum in a single year. If we assume that the oven is to cost him $450 and the price is to be amortized over a 10-year period, this breaks down to $45 a year, 12½ cents per day, less than the cost of a package of cigarettes.

For the purposes of this article, we shall group with institutions, summer camps and resort hotels of the less elaborate type, featuring the American Plan on which there is a limited number of menu selections. In this field, is the broadest possible application of sectionally-fired roasting and baking ovens, in that the number of persons to be served is known in advance, the menu is limited in its choices and the chief concern of the kitchen

manager is to prepare the food in quantity with the least amount of labor and expense.

The sectionally-fired oven is the ideal tool to accomplish these aims in that over and above preparing the delicious rolls, muffins, and desserts, it can be utilized at every meal for quantity production of a number of the menu items. For example, at breakfast it can be used for cooking the bacon or sausage, the preparation of shirred eggs and the production of scrambled eggs en masse. At the noon and evening meal, it can be used to prepare the entire meal with the exception of soups, coffee and salads. The meat dishes can be prepared in one section, while the others cook various potatoes and vegetable dishes and produce puddings and desserts. One 42" x 32" baking deck will produce 116 low cost casserole dishes in one batch.

Suitable for Many Uses

Similar large quantity production is easily accomplished with other food items. It is easily possible for an institution to prepare 70% of all the cooked food items in a sectional oven with a minimum expenditure for labor and a minimum of confusion in the kitchen.

The market for sectionally-fired ovens in the LP-Gas field is wide and offers a high potential profit both in increased gas load and profits on sale of equipment. The LP-Gas dealer will be benefiting both himself and his customer by vigorously going after this rich field.

Control Materials Plan July 1

Manly Fleischmann, administrator of the National Production Authority, U. S. Department of Commerce, formally announced on April 13 that a Controlled Materials Plan will be placed in operation July 1, for defense production and certain defense supporting activities vital to meeting rearmament needs.

CMP is a plan, he said, by which the three basic metals—steel, copper, and aluminum—are alloted directly to producers on the basis of detailed requirements submitted in advance for the manufacture of goods which the government needs for the defense program.

"CMP makes it possible to authorize specific production schedules and make firm allotments of the three basic metals needed to meet, but not exceed, direct defense and defense supporting production and construction goals—on time and in the proper quantities," Mr. Fleischmann said.

The first phase of the CMP operation will be reporting to NPA by producers of their detailed requirements for the basic materials on forms which will be sent to them in May. The second phase will be the allotment of the specific amounts of materials to producers starting July 1, after determination by the Defense Production Administration of the necessary production programs.

Hal Fuller Joins New Mexico Firm

Hal Fuller joined the staff of Foster Butane, Inc., of Farmington, N. M., on Feb. 1. He was formerly co-owner of Liquid Gas Service in Barstow, Calif., with R. M. Bohn.

Mr. Bohn has bought Mr. Fuller's interests in the Barstow firm.

Three Basic Steps In Selling Commercial Appliances

By Paul Inskeep
Commercial Sales Manager, Detroit-Michigan Stove Co.

THE first important step toward more sales and bigger profits for the dealer who sells commercial cooking equipment beyond the gas mains is: *Know Your Product!* Know the specific cooking job each piece of equipment is designed to do—know its advantages and its limitations—know its capacity.

PAUL INSKEEP

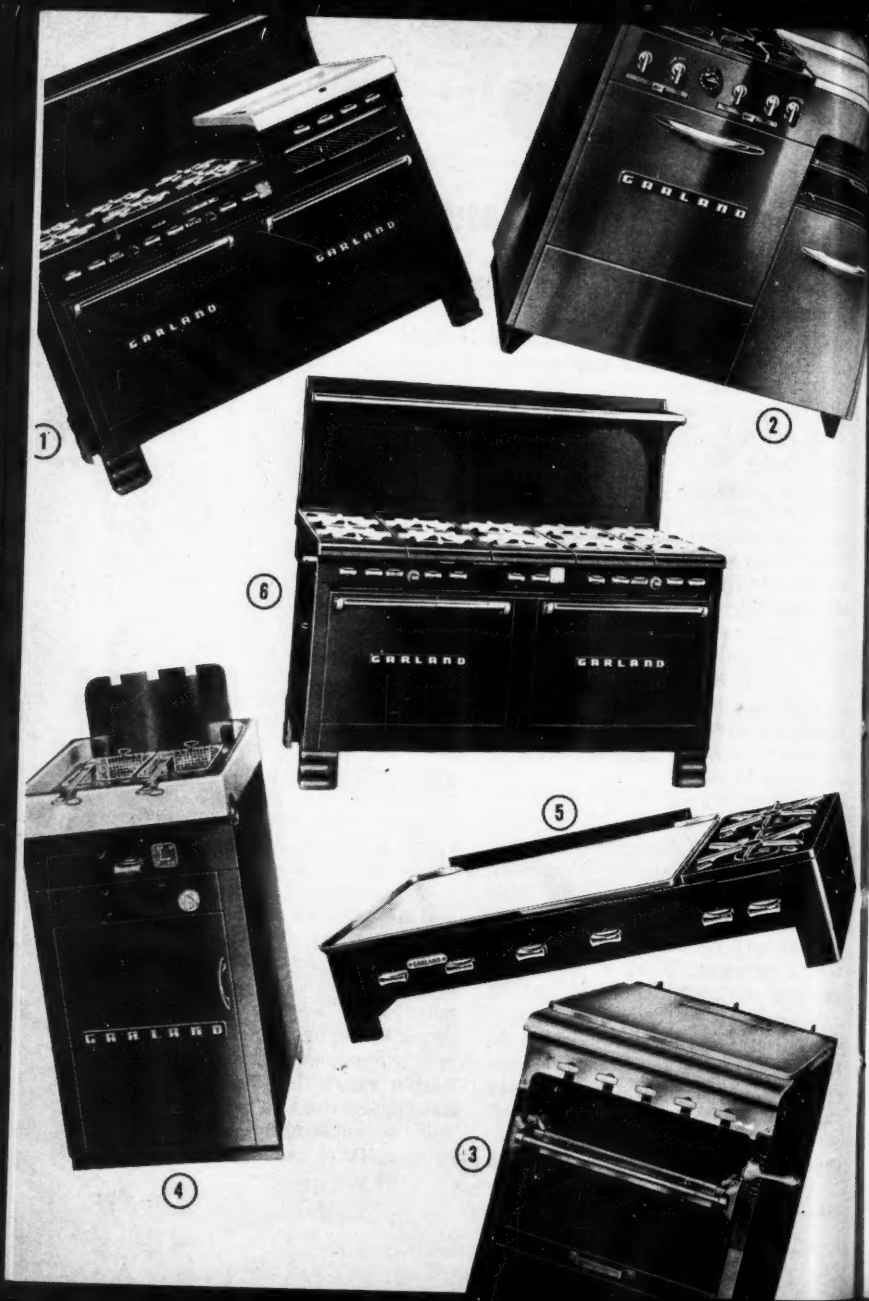
No doubt this sounds very fundamental, indeed almost elemental, but far too many dealers have missed important sales opportunities simply because they could not tell a prospect what a particular piece of equipment could do for him.

Such basic information—simple as it may seem—is important to have at your finger tips whenever you are discussing a prospective customer's needs.

A manufacturer's catalog is an excellent selling assistant that can supply you with detailed information of this kind at a moment's notice. Keep it handy!

The second basic step toward greater sales of commercial cooking equipment is: *Know Your Customer's Needs!* Know how he prepares most of his food—know approximately how many meals he serves a day—and, of course, know the size and shape of his kitchen. Each customer has individual requirements and you must decide—considering both his needs and the price he can or will pay—what equipment will do the best job for him. Generally, however, and especially in the case of smaller operations, there is a similarity to the needs of certain users.

For example, a restaurant with a seating capacity of about 60 people might get by with a restaurant range and a deep fat fryer. However, if the restaurant does much more than average broiling, the owner would be much better off (for only a few more dollars) with a 10-burner range that has two or more hot top sections, a deep fat fryer and a combination griddle-and-broiler. It is usually necessary to


GARLAND
GARLAND
GARLAND
GARLAND
GARLAND
GARLAND
GARLAND
1
2
3
4
5
6

point out, even to an experienced restaurant operator, that since steaks and chops are high profit items it would certainly pay him to have ample broiling facilities.

The very small diner or the counter restaurant may be able to get by with a "dinette" range and a counter griddle. However, if you can show the owner how he can increase his business by adding a deep fat fryer, both of you will benefit.

Clubs and churches are also good sales prospects in the small town. Generally, they require a 10-burner range with one or more hot top sections and two ovens. Most churches serve roasts and old fashioned dinners. With a large range the cooks will have ample oven capacity and sufficient hot top area to keep prepared food warm.

It is usually wise to recommend rust-resistant porcelain enamel top grates to clubs and churches since they generally do not use their equipment daily. Usually, churches and clubs do not require griddles or fryers—except those which serve weekly meals. School cafeterias are becoming more and more prevalent. If in your town the schools serve meals, restaurant ranges will probably be best. In some cases broilers and griddles may be used.

Know your product! Note the variety of models in one commercial line. In addition there are many possible hot-top, open-grate, and griddle combinations. The dealer should build his selling argument around the prospect's problem and the specialized equipment necessary to its solution. 1. This restaurant range is designed for a medium cooking volume. 2. For a small cooking operation attractively finished for use in the sight of customers. 3. Broiler and griddle used as a separate unit when above-average broiling capacity is required. 4. The deep fat fryer is especially useful when extra frying capacity is needed. 5. The counter griddle serves small diners and for short orders in larger restaurants. 6. This 10-burner range is for clubs and churches. It has ample oven and hot-top capacity.

Potential Unlimited

In general, restaurant ranges, griddles and deep fat fryers are the largest selling items and their potential is almost unlimited. But in most cases you will have to go out and find the prospects.

The third and final step to greater profits is: *Sell the proper equipment and service it regularly!* Now your actual approach to the sale—after selecting the proper equipment to do a particular job—will of course depend upon whether you are replacing similar equipment, adding a new piece of equipment, or putting in an entire installation.

If you are replacing old equipment, you'll want to sell economy, faster and better food preparation, easier cleaning and greater efficiency. You'll want to point out that, considering all these factors, the new equipment will soon pay for itself.

If you are selling a new piece of equipment or a new installation you'll want to point out how the restaurant owner can increase his

menu variety, increase his total capacity and better the quality of his food.

For example, if you think that a small restaurant could profitably use a deep fat fryer (and most can), show the owner how he can widen his menu to include fillets, French fried potatoes, veal cutlets, onion rings, fried cakes, scallops, croquettes, potato chips and many other customer-winning dishes. Show him how the deep fat fryer can help him handle peak business at noon and evening. Point out how the fryer will relieve his top burner equipment.

Actually, it will give him additional burner capacity at no extra cost. This is especially important in small restaurants where both space and capital are limited. Also tell the owner how economical the fryer is to operate and show him how simple and safe it is to use.

Service Regularly

After the equipment is installed be sure that you service it regularly. This is very important. For if you can satisfy a customer and keep him satisfied, he can help you close many a sale.

Here are a few service pointers in the interest of future sales:

1. Make periodic checks to see that the equipment is in good condition, that the adjustments are correct, that the pressure on peak loads is sufficient for fast, efficient operation.

2. Replace worn-out parts and parts which are no longer giving expected service.

3. Do not assume your customer knows maintenance details. Give him suggestions and money-saving operating tips.

4. Check proper flueing of equipment and double check fittings and safety devices.

Knowledge of the products you sell combined with the interest you show and the knowledge you acquire of your prospective customer's needs will go a long way toward helping you increase your sales and profits. But once you have acquired a customer, don't forget to keep him happy. A happy customer is living advertisement for you.

•

All photos show the "Garland" line of commercial equipment manufactured by Detroit-Michigan Stove Co.

Tulsa "U" Plans Appliance Short Course May 28-30

The sixth annual gas appliance short course of the University of Tulsa will be held May 28-30 inclusive in Tulsa, Okla. Subjects to be included in the course will cover automatic controls, gas fundamentals, correct tools and their uses, location of gas leaks, servicing automatic ignition on domestic gas ranges, service calls on high bill complaints, servicing gas clothes dryers, gas for cooking, trouble shooting on automatic gas heating appliances, servicing commercial gas cooking appliances, and a service supervisor round table.

Registration begins for the course on May 28, 8 a.m., although the university advises that advance registration is desirable to facilitate rapid processing on registration day. Registrants who attend nine of the 12 sessions will be awarded a certificate of completion.

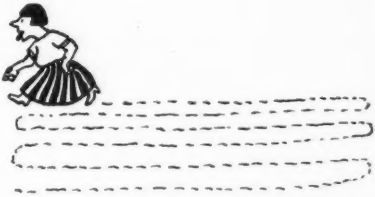
THE FOUR FREEDOMS
OF THE GAS DRYER

By E. P. Hamilton
President, Hamilton Manufacturing Co., Two Rivers, Wisconsin

BETTER bathrooms started it. When the Roaring Twenties introduced the porcelain bath tub and a matching supply of hot water, the farm population accepted it readily. Better kitchens became the byword in the late thirties with home demonstration agents, the magazines, radio, and farm women, emphasizing new convenience and beauty in the heart of the home.

With a farm population that sets a high standard for sanitation, convenience and good results, post-war interest in better laundries followed logically. Laundry must be done at home because there are no corner laundramats or pick-up laundry services in rural areas. Work clothes and milk house linens mean constant, heavy laundry loads in addition to the regular household requirements.

From the date when Hamilton sold the first automatic LP-Gas clothes dryer, a few weeks before Pearl Harbor, it caught the imagination of the American woman. She immediately saw its possibilities in freeing her from the time and energy-consuming, burdensome



1. Freedom from Walking.

chore of hanging each individual item of laundry on a line.

She was further sold on the automatic dryer by the women's magazines, home planning and home economics experts. They have done a tremendous job in presenting and popularizing the dryer, opening the way for the appliance dealer to a vast, waiting, pre-sold market.

For example: The Curtis Publishing Co. research department, known to be conservative, estimated a laundry dryer potential of about 2.6 million for the six years up to 1955. Actually 318,000 clothes dryers were sold in 1950, alone. This was a 30% increase over 1949 sales. Thousands more could have been

sold had they been available. The survey further states, "This industry (dryer) cannot disregard the rural market." In partial support of its prediction the survey quotes the U. S. Meteorological Year Book that poor weather prevails 70% of the time in most of the nation.

The great advantage to the LP-Gas dealer in selling dryers is the fact that the small town and rural market is still untapped. Only 10% of the dryers made last year went to farm homes. With farm income high and likely to remain securely high in the predictable future, the dryer can offer dramatic proof that it is a wise investment. A letter from a Lansing, Mich., farm woman indicates which way the wind is blowing, "You may have your television, ironer, a new car every year, yes, and a freezer . . . I will keep my dryer."

The dryer sale is handled easily. It need not be sold with any other appliance, washer or ironer. Users of conventional wringer-type washers save as much time and work with a dryer as do the owners of automatic washers. It competes with nothing but the clothesline.

Simple installation, ease of operation, no plumbing requirements, all commend the gas dryer. With automatic ignition you simply set the timer and heat control to put

2. Freedom from Stooping.

3. Freedom from Stretching.

the dryer in operation. It is a clean sale with no trade-ins, negligible service needs and a profitable margin. Installation costs will rarely exceed $15.

As a load builder, consider that the dryer uses 250 pounds of gas a year as a conservative estimate. Based on consumption of 18,000 Btu per hour of dryer operation, the more sizable farm family may use up to 30 pounds. The dryer user visualizes gas consumption as equivalent to two burners on the gas range.

Dealers who plan ahead for the future realize that the sale of an LP-Gas dryer may save that farm home for gas. The more gas appliances you install the bigger your load and the more likely it is that that customer will stick with gas.

A survey of Hamilton dryer users reveals a high percentage of sales made because of a friend's enthusiasm for her dryer. Once more the sales value of "using the user" is shown.

In order to develop that enthusiasm for the dryer which guarantees sales it is absolutely necessary that you, your wife, your sales force, their wives, all, use the

dryer. Use it for your own family laundry, follow suggestions in the instruction book, see what it can do. Your store alone in your community can start the ball rolling. Remember that the dryer is still new enough in any community to excite curiosity and conversation.

A properly connected, live dryer on your floor, with colored towels tumbling noiselessly inside the lighted drum, provides a constant effective display.

Where you know your prospects, as you may more readily in rural community, free, 10-day trial has been more than 90% successful. In this case, as with post-sale demonstrations, drying time and temperature for various fabrics, sorting

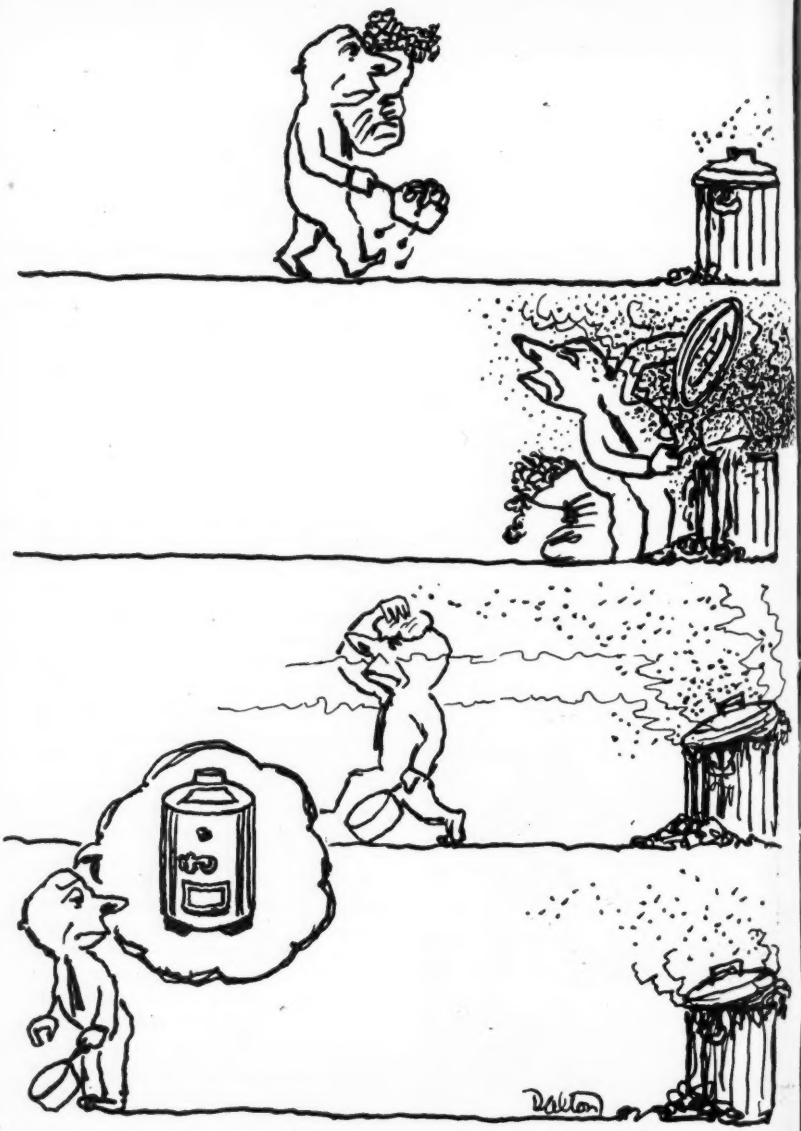
Housewives demonstrating the ease with which the general washing and even rugs can be dried.

4. Freedom from Lifting.

of clothes, starching, testing for degree of dryness, all revealed in the instruction book, can be explained to the new user so that she will enjoy her dryer and will recommend it.

Rainy days will always be good days for dryer sales. Today's farm woman, with increased community responsibilities, defense work, Red Cross work, is still conscious of the fact that special seasonal demands require her full attention for long hours. The dryer permits her to dispose of her laundry problem at any time, day or night, good weather or bad. Illness in the family and the consequent requirements of fresh clothing and linens, possibility of purchasing a smaller supply of children's clothes because of ease of laundering are special arguments for the dryer.

Countless miles of walking saved each year, freedom from stooping, stretching, lifting of clothes baskets are sweet promises which the dryer fulfills. Add to this the pleasing appearance and softness, the greater durability of clothes dried in the dryer and you will be convinced that selling a new dryer can be a pleasure to you and your farm customer.


Dalton

Sell Incineration

There are no trade-ins and it is a new year-round load.

By J. G. Dierkes
General Manager, Incineration Division, Bowser, Inc., Cairo, Ill.

TOO many people still make anywhere from 500 to 700 trips per year, in all kinds of weather—rain, snow, heat and cold—to the old garbage can and rubbish heap at the rear of their property. They still put up with the obnoxious conditions that result, such as undesirable odors, flies, pests and rodents.

All present and potential LP-Gas users provide an enormous market for the modern in-the-house, gas incinerator. The trend to automatic gas heating during the past few years has introduced the new problem, in numerous homes, of disposing of combustible trash heretofore thrown in the coal furnace or wood stove.

The Fire Hazard

In addition, garbage cannot be maintained in a sanitary condition, particularly in warm weather, while accumulations of trash are sources of spontaneous combustion and become a fire hazard when burned. Many suburban and rural areas are adopting codes restricting the firing of trash out-of-doors.

Uninterrupted Service

LP-Gas-fired incineration solves these problems by rendering a complete disposal service inside the home. It makes the householder independent of bad weather; it burns garbage and trash, wet or dry; it is trouble-free in operation, and always available for service.

Further pointing up the market acceptance of this form of appliance, one may refer to the electric industry, which, since World War II, has promoted and sold thousands of electric sink disposal units. But electric models handle only food scraps and small bones.

On the other hand, LP-Gas incinerators dispose of food scraps, small and large bones, paper, rags, old

clothes, old shoes, or anything that is reasonably combustible.

Garbage, by its very nature, demands and gets attention before too much time elapses in the average home. Rubbish and trash, however, are accumulated in almost unbelievable places and quantities.

The 1949 estimated distribution of United States building losses, through fire, show that rubbish caused 30,000 fires in that year which resulted in damages in excess of $6,000,000.

Labor Saving

LP-Gas-fired incinerators in sufficient homes would reduce that loss tremendously, not to mention the improvement which would result to the premises and the saving in labor to both husband and wife.

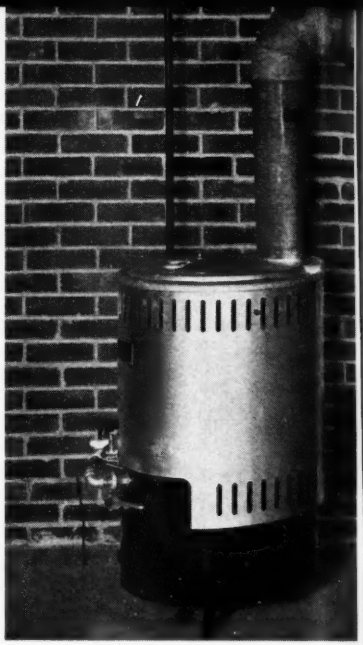
These units are always ready for use and their operation is not subject to interruption by wind, storm or bad weather.

The modern incinerator can be vented into a chimney with other LP-Gas appliances and its daily use helps to maintain the flue in dried out condition, free of air and vapor locks.

The units are also vented in separate chimneys and in many instances engineers like to "Y" it with the furnace flue into the chimney.

The particular method of installation and recommendations governing such work are matters of compliance with local regulations and codes.

A definite "yes" is in order as an answer to the question "Do people want LP-Gas-fired incinerators." A recent survey, conducted by a gas utility company which has been merchandising gas-fired units since World War II, provides an excellent cross-section of consumer opinion.



LP-Gas "Incinor," manufactured by Bowser, Inc., is installed in a small home in Indiana, typical of suburban and country homes that offer a brand new and profitable market for dealers.

The company contacted 50 of its customers who had purchased the equipment from them and asked for a frank expression of opinion. A total of 48 purchasers were happy they had gas-fired disposal units and their expressions ranged all the way from "satisfactory" to "finest

thing we have in the home" and "wouldn't do without it."

Customer No. 49 had a complaint which indicated that an adjustment was necessary on his incinerator. After the service call was made he was thoroughly happy. Customer No. 50 said he had no complaint—a negative way of admitting it was okeh.

That is the result of a spot check—50 satisfied customers—a part of the thousands of gas-fired incinerator users who are glad they have a fully automatic way of handling their garbage and rubbish disposal problems.

A Sellers Market

Those thousands of customers may be duplicated in the LP-Gas field.

There are many sales points which may be used to promote LP-Gas incinerators beyond the mains. Properly presented they will create the interest necessary to close profitable sales. These are:

The automatic incinerator gives complete disposal service inside the home with LP-Gas—no need to plod outdoors.

It burns trash and garbage, wet or dry.

It is trouble-free in operation, efficient, economical and provides maximum convenience at minimum cost.

It is a safeguard to health for it is sanitary.

It eliminates accumulations of trash, thereby reducing fire hazard.

It adds distinction to any home and has tremendous appeal to housewives.

Probably the best way of promoting automatic incinerators is through dramatizing the need for them in sales literature, store displays and local advertising.

A review of present customers and the appliances they use will aid the dealer in formulating a sound, selling campaign to be directed at new prospects and non-users, the most important step of which will be direct solicitations and demonstrations.

Commercial institutions will open another field of tremendous potential. Among such prospects are schools, cafeterias, medical offices, restaurants, bakery shops, hotels, and hospitals.

The sale of LP-Gas incinerators offers the dealer:

1. Full profit on the sale of the appliance. There is no trade-in problem.
2. Ease of sales and availability in two-bushel and four-bushel capacity units.
3. A brand new market, virtually untouched.
4. Availability of units carrying AGA Laboratories approval.
5. Increase of profits through additional, 12-month domestic load.

Units Are Available

Statistics indicate that the production of domestic, gas-fired incinerators for the 12 months ended Dec. 31, 1950, was three times the annual production for 1949. This is based on production reports furnished by seven manufacturers of the units.

The market demand is here, now. The success the automatic incinerator has had, sales-wise, in urban areas may be duplicated in the suburban and rural areas. It is up to the LP-Gas dealer and merchandiser to take it from there.

The best way to prevent electric competition from "pirating" your customers or prospects is to sell the gas range and water heater at the same time. It will be easy to do this if dealers will try the

New Approach to Selling Water Heaters

By A. B. Cameron
General Manager, Ruud Manufacturing Co., Pittsburgh, Pa.

THE automatic water heater is your key appliance; your most able good-will ambassador, your easiest selling job, and your outstanding insurance against the inroads of competition and the possible loss of your domestic business. The gas load which it produces is the steadiest and the most profitable. It can change the color of your business from red to black, or make an already profitable business a gold mine. Get *in* hot water before you find yourself out in the cold!

A. B. CAMERON

Today's Mrs. America is automatic-hot-water-service-minded. She doesn't particularly care what fuel provides this service, so long as she gets it at a reasonable cost—and the cost is secondary to the service.

If you fail to convince her that gas is the best hot water bet, she will buy the electric unit. Once the electric water heater is installed, your gas range and your gas service are on the way out. Make no mistake about that. Over a period of years, I have examined hundreds of customer cancellation reports, and never do I recall seeing one for a customer using a quality gas range and a quality gas water heater.

On the other hand, you have undoubtedly lost range-only users to electricity without warning or notice. Your first knowledge of the loss came when you found that an up-to-the-minute electric range, and perhaps a water heater as well, had already been installed.

Yet if she had also had a dependable automatic gas water heat-

Today's Mrs. America is automatic water heater minded.

er she would have pondered long and hard before changing to electricity. Nine chances out of 10 you would have been given an opportunity to demonstrate the superior advantages of an up-to-date gas range. Even the small effort involved in telling your customer the convincing story of automatic gas hot water service might well have prevented the loss.

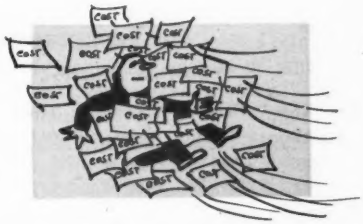
The second reason why the automatic water heater is your key appliance is economic. Today's cost of equipment and cylinders, the cost of propane, the cost of labor and the cost of everything else that enters into the conduct of your business, has risen so high that you dare not (even if permitted!) hike your selling prices enough to fully offset them. You are serving your small users at a loss. Your salvation is to increase the average number of pounds sold to the user. Only in this manner can you provide a broader base over which to spread your fixed and operating overheads, and thereby reduce your overall cost per delivered pound.

The water heating load is the largest, most stable and most dependable load available within the scope of your feasible selling prices. It offers you the best opportunity to substantially increase your per customer use. When you sell an automatic water heater to a range-only customer you treble or quadruple his gas consumption. The three-cylinder-per-year customer is now a 12-cylinder customer.

By moving from a zero to a 25% water heating saturation you approximately double your gas sales volume. The limit of your potential is 100% water heater saturation. When you reach this point it is time enough to concentrate on persuading your customers to use more hot water.

There are other reasons for treating automatic water heaters as your key appliance. But they all boil down to the same conclusion—you must promote the water heater for a permanent and profitable business operation.

Now let us examine the relative capabilities of gas and electric



The second reason why the automatic water heater is your key appliance is an economic one.

water heaters. Until we understand the outstanding superiorities of gas water heaters we cannot expect to carry the gospel to our customers.

Fortunately, the superiority of gas over electric water heaters is easy to demonstrate. If we but know how to interpret the figures we need only refer to the approval plates of the two types of appliances in order to demonstrate the strength of the gas water heater and the weakness of its electric counterpart.

Ironically, the electric appliance industry, itself, has been so kind as to place in the homes of our customers an extremely useful and appealing home appliance which imposes hot water demands of such magnitude that the shortcomings of the electric water heater become painfully apparent. I refer, of course, to the automatic or sequence clothes washing machine.

Because of the slow recovery of electric water heaters, there is no real comparison in the performance ability of gas and electric water heaters of equal tank capacity. Gas water heaters take their strength from the speed and flexibility of gas. Granting proper design, a storage type gas water heater can handle Btu inputs far above those currently used, and gas service lines can make any required number of Btu's available to the appliance without breaking down the distribution system. Electric water heaters, however, will always have low Btu inputs and can never meet the stepped-up hot water demands of modern households. This is a hurdle that no conscientious electric appliance salesman cares to contemplate.

The recovery rating of electric water heaters is theoretically about one-fourth to one-third as great as that of the average gas water heater. In order to speak specifically I have recorded the standard inputs and recovery ratings, both theoretical and practical, of probably the most widely sold brand of electric water heaters in Table 1.

Of course there are all sorts of variations to the standard arrangement of element inputs to meet the theories of individual electric engineers, but the fact is that all of

TABLE 1. STANDARD WATTAGE UNITS OF POPULAR MAKE ELECTRIC WATER HEATER

	Two Unit Heaters			Single Unit Heaters	
Tank Cap.	Bottom Unit	Top Unit	Theoret. Max. Recovery, 100° Rise	Bottom Unit	Theoret. Recovery, 100° Rise
30	600 W	1000 W	6.4 gals	1500 W	6.0 gals.
40	750 W	1250 W	8.0 "	2000 W	8.0 "
52	1000 W	1500 W	10.0 "	2500 W	10.0 "
66	1250 W	2000 W	13.0 "	3000 W	12.0 "
82	1500 W	2500 W	16.0 "	4000 W	16.0 "

Table 2. Input and Recovery Ratings of Gas Water Heaters

Tank Capacity	Btu Inputs	Actual Recovery 100° rise	Recovery Ratio-Gas to Elec.
30 gals.	30M to 43M	25 gals. to 36 gals.	4 : 1 to 6 : 1
45 gals.	50M to 55M	42 " to 36 "	4 : 1 to 5 : 1
65 gals.	50M to 71.5M	42 " to 60 "	3½: 1 to 5 : 1

them can be properly classified as desperation measures designed to minimize a basic weakness which cannot be corrected.

For comparative purposes, I have also listed in Table 2 the inputs and recovery ratings (100° rise) of several fast-recovery Ruud gas water heaters having tank capacities approximately equal to those of the electric units.

From an examination of electric water heater sales manuals it will readily be seen that the electric water heater's deficiency in recovery capacity must be offset by attempting to sell the larger, bulkier tank sizes up to 52 or 66 gallons capacity in competition with average input 30-gallon gas water heaters. And by checking the figures you will discover that a really fast recovery 30-gallon gas water heater will perform under most circumstances as well or better than even the standard 82-gallon electric water heater. I will leave it to you to assess the selling edge that this gives us over the electric salesman!

Our problem, then, is to find a means of explaining to the prospective water heater purchaser, in words which he can understand, the relative performance of gas and electric water heaters, and to translate these performances into terms of his own hot water requirements.

A really fast recovery, 30-gal. gas water heater will perform better than an 82-gal. electric model.

In an attempt to furnish the industry with such a means our company devised a system of what we call "Performance-Rating." Performance-Ratings are simply the measure of the relative amounts of hot water service available from water heaters of varying tank sizes, heat inputs and water storage temperatures.*

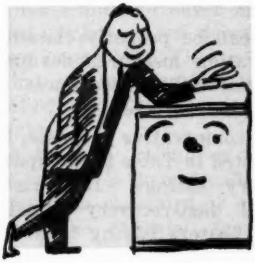
* See December, 1950, issue of BUTANE-PROPANE *News*.

As already mentioned, the sequence washing machine is a backbreaker for the electric water heater, and can be the means for bringing out in the open the outstanding advantage of gas-fired water heaters.

We have, in the fast-recovery automatic gas water heater, the answer to the hot water demands of the sequence washer. The slow recovery electric water heater, even in the bulky, expensive, large tank sizes, cannot properly supply a large proportion of the automatic washers on the market. We should, therefore, use the hot water demands of the automatic washer as a means of demonstrating the superiority of automatic gas hot water service. If we can handle these demands we can handle all the other normal hot water requirements of the household.

The slow recovery of electric water heaters is not a condition which can be cured by the redesign of the appliance. The basic difficulty is that electric generating plants, substations, transmission lines, transformers, and house service lines cannot handle the heavy load imposed by a high concentration of high input electric water heaters. The water heating load occurs at a time of day when the electric facilities are already heavily burdened. The water heater load factor is such that most forward looking combination utility companies discourage the sale of electric water heaters and emphasize the advantages of gas.

THE AUTHOR states that it is the self-interest of every dealer to promote automatic water heaters now! What is needed is a revised mental outlook that will consider the gas range and the gas water heater as inseparable, identical twins of the industry.



So much for our true friend, the sequence washer.

Unfortunately, most straight electric companies, and Rural Electrification systems, are still blindly pushing the sale of water heaters, but have been forced to resort to the devious device of off-peak heating. Knowing salesmen, you will appreciate that this policy has resulted in many thousands of unsatisfactory domestic hot water services. We can well take warning from this situation, which will, if we utilize our advantages properly, enable us to gain control of the most profitable domestic appliance load available.

You are aware of the rates against which you are competing and know how to make cost comparisons. Of course there is a lot

of bunk which has been spread around about relative efficiencies and the like, but for practical purposes in comparing LP-Gas and electric water heating costs you need only multiply the electric water heating rate by 6 in order to find the per pound cost of propane which will produce an equivalent operating cost. Naturally you are not going to be led into the electric trap of applying a one-cent or similar water heating rate when service is provided by means of off-peak, clock-controlled electric water heaters. The final and most important job is to examine our past method of approaching the water heating market, find out where and why it failed to accomplish results, and devise a new approach to get the job done.

You must revise your mental attitude, adopt a new program, and put it to use. Then nothing in the world can stop you from licking your electric competitor both ways from the ace.

Here is the formula, and it is very simple:

1. Select a high quality line of water heaters.

2. Equip yourself with a complete knowledge of the requirements of domestic hot water service, just as you have done in the case of cooking.

3. Set up a water heating selling program having two basic objectives:

A. Have a serious hot water talk with every range-only customer on your list. Get into each home. Find out what he is doing for hot water service now. Sell him a better service.

B. Sell additional range-only users only after you have exhausted every method of selling the water heater as well. Combine the strength of the gas range and the gas water heater in your sales presentation.

There are naturally, many possible plans for successful selling programs. I refer to such things as displays, advertising, combination sales, finance plans, installation and service procedure and the like. These things are important, but what we are really talking about today is a new mental attitude, a new approach to the market, and a new conception of accomplishment.

Green's Fuel Float Again Wins Pageant Honors

Green's Fuel Inc., of Sarasota, Fla., was awarded first prize for the most outstanding float in the 1951 Sara De Sota Pageant, an annual Florida event in which this firm has repeatedly won honors.

Susan and Margaret Green, Taylor Green's daughters, assisted by two friends, were models on the winning entry, which was in competition with 50 floats.

In addition, 30 bands from all parts of the state highlighted the festival together with equipment and animals from Ringling Bros., Barnum and Bailey Circus.

Net result of Green's Fuel's triumph is increased interest in LP-Gas among the 100,000 people who witnessed the pageant and the other thousands that were reached through resultant publicity, according to Kenneth Koach, general manager of the concern.

PRACTICAL MANAGEMENT

OF AN LP-GAS BUSINESS

CHAPTER 2

How Much Capital Do You Need?

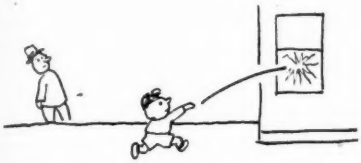
By C. C. Turner

THERE are those who will say you don't need money to enter the gas business.

Don't you believe it. There are dealer setups which do not require any investment on the dealer's part in gas equipment, cylinders, or other containers, but capital is still required for trucks, tools, supplies, a place to do business, appliances to sell and operating expenses while waiting for people to pay their bills to you.

There isn't an oil company or a distributor who is going to set you up in business just because they like you. In fact, if they wanted to sell direct to the consumer you wouldn't have a chance to get into the gas business excepting as an employe. It follows that the greater the investment which either one

I am not in favor of complete company control.



On the other hand, I am not in favor of complete independence.

of them makes in your business the more you will be controlled in your activities and the closer you will approach the status of an employe.

Between the two extremes of complete independence and entire control are many modified plans of dealer operation. I am not in favor of either extreme. I am not in favor of complete company control for the reason that it kills the initiative which is so necessary to the success of this business and it removes that incentive which encourages hard work, with recompense in proportion to what you do.

On the other hand, I am not in favor of complete independence because the individual is apt to discount operating methods which are essential to the well-being of this business as a whole, or to completely ignore them.

Recently we have had a wave of legislation restrictive to the gas business throughout the country. It has largely been caused by accidents which in turn have been caused by flagrant disregard for regulations which have been self-imposed by the gas industry.

Another cause has been actual dishonesty on the part of some operators whose purpose it has been to wring out of the business every possible penny by any means if it did not involve punishment.

Before we can discuss the various plans for establishing a business which are available we must define them. First, there is what I term the "Commission Agency" under which the dealer does not have any investment in gas equipment, cylinders, or other contain-

This new series on managing an LP-Gas business brings to BUTANE-PROPANE *News* readers again the practical experiences Mr. Turner has gained over many years of intimate association with our industry.

First he gave us his series on "Bottled Gas Marketing," followed by the 24 chapters of "The Bottled Gas Manual," now available in book form. Then came the articles on commercial and industrial applications which opened new sales potentials to dealers everywhere.

And currently he discusses the economics of entering and successfully operating an LP-Gas business.

The first chapter appeared last month, entitled "Are You Qualified?" Next month's chapter will outline ways to raise capital. Keep a file of these month-by-month discourses on how to conduct an LP-Gas business. They will present many a valuable principle you can apply to your own operations.—Editor.

ers, and operates upon a strictly commission basis in relation to the gas which he sells. He may or may not be required to buy all appliances, fittings, tubing and other supplies from or through the distributor. Commissions vary from 25% to 33⅓%, depending upon the amount of service which the distributor renders to the dealer. Gas prices are controlled by the distributor.

The next popular plan is what I term the "Cooperative Agency" under which both the dealer and the distributor have an investment in the gas containers, title to the gas equipment and containers remaining with the distributor. Gas prices are controlled by the distributor and the commission paid to the dealer varies from 33⅓% to 50%, depending upon the amount of service which the distributor renders to the dealer.

The "Fuel Contract"

A third plan can best be designated as the "Fuel Contract." Under the Fuel Contract plan the dealer owns the gas containers and he may or may not own the gas equipment. He buys gas at a price which varies with the market and the price which he pays is largely determined by the services which he receives from the distributor. The distributor does not control the retail gas price.

A fourth plan is that of "Bulk Plant operation" under which the dealer has storage facilities for tank car or transport shipments of liquefied petroleum gas. He may purchase gas from a distributor or direct from an oil company. The gas equipment and gas containers may be owned by the distributor, by the consumer or by the dealer, himself. Bulk plant operators quite often develop into distributors, and have dealers who operate under any one of the plans which have been described.

At this point we must digress long enough to find out just what a gas installation is, and how much it costs. Fundamentally it consists

---

CHOOSE ONE OF FOUR PLANS

1. **Commercial Agency Plan:** Dealer has no investment in gas equipment or gas containers and operates upon commercial basis. Receives 25 to 33⅓%.
2. **Cooperative Agency Plan:** Dealer and distributor share ownership of containers but distributor retains title to equipment and sets prices. Dealer receives 33⅓ to 50%.
3. **Fuel Contract Plan:** Dealer owns gas containers and may or may not own equipment. He buys gas at market price from distributor but sets retail price.
4. **Bulk Plant Operation Plan:** Dealer installs bulk plant facilities for tank car or transport shipments of fuel. Buys gas where he chooses. Containers may be owned by him, or by him and distributor, or by fuel marketer. One step removed from a distributor.

of a gas regulator and a gas container. There are some fittings which are essential to it. Excluding the so-called "self service" or "cash-and-carry" installations, the cost of a simple gas installation varies from $18 to $100 or more, depending upon the type and size of gas container and the type and size of gas equipment used. Simple gas installations are modified by the addition of meters, or additional containers. In the latter case modification of the regulating equipment is necessary. Modified gas installations cost $32 and up.

The prices given are as of 1950, and do not include labor, freight costs, tubing, pipe, or fittings. It is easy to figure that the simplest gas installation may involve the expenditure of at least $30, but because of modifications the average cost is nearer $50.

In the days when the consumer had to stand all of this expense very few installations were made. In a nation where 75% of the population is dependent upon a weekly wage and is seriously embarrassed by the loss of one week's work, there is a far more logical reason for distributor-dealer-consumer apportioning of gas installation costs than the commonly accepted one of a desire upon the

TABLE 1. GROSS PROFITS PER DOMESTIC CUSTOMER PER YEAR EXCLUSIVE OF HEATING LOAD.

Basis of computations: 6,500,000 Btu to 10,000,000 Btu per year. Gas price approximately 34c per gal. or 8c per lb.

If the Gross Percentage of Profit on Gas Is	*The Yearly Gross Profit Per Customer Per Year Will Be*	
	From	*To*
10	$ 2.40	$ 3.70
15	3.60	5.55
20	4.80	7.40
22½	5.40	8.32½
25	6.00	9.25
27½	6.60	10.17½
30	7.20	11.10
32½	7.80	12.02½
33⅓	8.00	12.33⅓
35	8.40	12.95
37½	9.00	13.87½
40	9.60	14.80
42½	10.20	15.72½
45	10.80	16.65
47½	11.40	17.57½
50	12.00	18.50

TABLE 2. NUMBER OF DOMESTIC CUSTOMERS (EXCLUSIVE OF HEATING LOAD) NECESSARY TO PRODUCE A GROSS PROFIT OF $1000 PER YEAR.

(Compilations Based on Data from Table I.)

If the Gross Percentage of Profit on Gas Is	*The Number of Customers Necessary to Produce a Gross Profit of $1000 Per Year Will Vary From*	*Down to*
10	416	270
15	277	180
20	208	135
22½	185	120
25	166	108
27½	151	98
30	138	90
32½	128	83
33⅓	125	81
35	119	77
37½	111	72
40	104	67
42½	98	63
45	92	60
47½	87	56
50	83	54

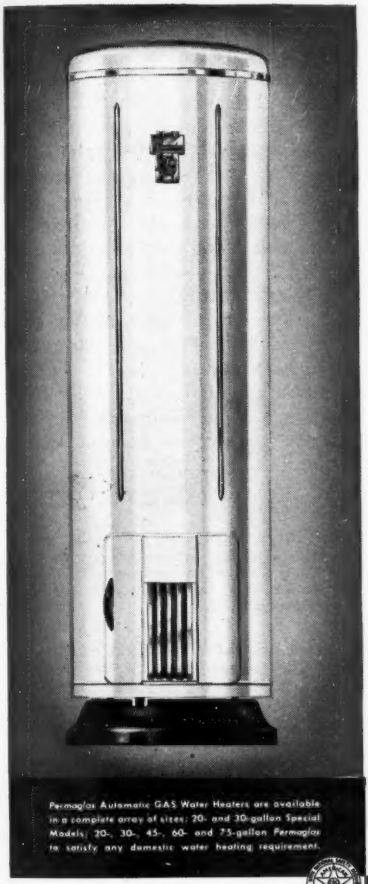
part of either the distributor or the dealer to "control" consumer accounts. Naturally, either the distributor or dealer having an investment in a gas installation wishes to have something to say about the conditions under which that gas installation shall be used!

Now let's get back to the amount of capital which you must have in order to get started in the gas business. Domestic installations will form the bulk of your business, so let's forget about the big commercial or industrial accounts for the present and hope you do get them and consider them as so much "velvet" if you are this fortunate.

Domestic installations in typical bottled gas areas utilize an average of about 6,500,000 Btu per year exclusive of heating. They would average four times this amount if dealers were doing a real job.

One type of installation which serves to hold the average down is the so-called "vacation" or "seasonal" user. Average demand throughout the South is somewhat higher due to lower gas costs and use of the fuel as an occasional heating medium.

In northern and central areas



Permaglas Automatic GAS Water Heaters are available in a complete array of sizes; 20- and 30-gallon Special Models; 20-, 30-, 45-, 60- and 75-gallon *Permaglas* to satisfy any domestic water heating requirement.

Large size

Permaglas

water heaters

actually cost less

than ordinary water heaters!

For months you've had the news that *Permaglas,* the automatic water heater with glass-surfaced steel tank that can't rust because glass can't rust, *costs no more* than ordinary water heaters.

Actually, the larger sizes of *Permaglas cost* LESS *than ordinary water heaters!* Yes, they're big—with proportionate profit to you!

This triumph, of A. O. Smith manufacturing methods, means that wherever a large size water heater is required you can now supply and install this finest of all for LESS!

Makes the value of a registered A. O. Smith dealer franchise greater than ever!

Smart merchandisers investigate A. O. Smith and sell adequate sizes . today there's greater need than ever for more hot water in every home with the growing popularity of new hot water consuming appliances.

Get all the facts back of this incredible news at once. Write or use the handy coupon today.

Can't Rust because Glass can't rust!

A.O.Smith

AUTOMATIC WATER HEATERS

Boston 16 • Chicago 4 • Dallas 2 • Denver 2 • Detroit 21
Houston 2 • Los Angeles 12 • Midland 5, Texas • Milwaukee 2
New York 17 • Philadelphia 3 • Pittsburgh 19 • Seattle 1 • Tulsa 3
Washington 6, D.C. • International Division: Milwaukee 1
Licensee in Canada: John Inglis Co., Ltd.

A. O. Smith Corporation
Water Heater Division, Dept. BP-551
Kankakee, Illinois

Send me the facts on *Permaglas.* Include my copy of Don Herold's book on *Ceramitron* construction.

Name _____

Firm _____

Street _____

City _____ Zone ____ State _____

where there is no great seasonal usage the average may be in the vicinity of 10,000,000 Btu per year. Assuming a price of 34c per gallon or 8c per pound, the gross revenue from average domestic customers, exclusive of heating, will be from $24 to $37 per year.

Table For Future Reference

Table 1 has been computed for future reference and calculations. It is the basis of calculations in Table 2 which shows the number of domestic customers necessary to produce a gross profit of $1000. A rule-of-thumb method of computing the gross profit which you must have is to take the net income which you feel is necessary and double it.

For example, if you are aiming for a net income of $5000 per year, you should double this amount to arrive at the gross profit which you must have. Applying Table 2 to this example, you would have to obtain 10 x 270=2700 up to 10 x 416=4160 customers if your gross percentage of profit on gas was but 10%. If your gross percentage of profit on gas is 50% you would only have to obtain 10 x 54=540 up to 10 x 83=830 customers to obtain the same income.

While the price which the consumer pays for gas does decrease as the amount that he purchases increases, the decrease in price is nowhere in proportion to his increased purchases. It is therefore obvious that it is good business to increase the per customer gas load by the sale of water heaters, refrigerators, and space heaters; for in so doing the investment in gas equipment per customer increases but little if any at all.

There are short-sighted people in the gas business who overlook the percentage of return upon their investment and shy away from the water heating, refrigerating, and space heating loads because it brings down the per unit price of gas!

It is only natural that you should want to tie up under a dealer contract that will allow you the greatest percentage of profit, or an approximate 50%, but if you do this you have got to pay a substantial portion of the amount neces-

Mr. Turner's figures are based upon operations in the northeastern section of the United States and readers should substitute customary consumption figures for their respective localities.

Latest national figures released in January, 1951, based upon an estimate of 7,500,000 LP-Gas installations and total domestic fuel sales of 2,143,000,000 gals., would give an average of 286 gals. per customer. This figure, however, included fuel for all internal combustion engine uses and therefore the actual domestic average was probably approximately 200 gals. per year for cooking, water heating, refrigeration, and house heating. Note that Mr. Turner's figures do not include house heating.

The same adjustment must be made for the base, estimated price of 34 cents per gallon. In those areas where customers have large storage tanks instead of cylinders and specially when the fuel is used for heating, prices are much lower than the one quoted. In areas where prevailing prices are lower, dealers can easily compute relative percentages. All prices quoted are for examples only.

sary for gas equipment and containers.

I have mentioned the distributor-dealer-consumer method of apportioning these costs. It is not customary to apportion them equally because the distributor's percentage of gross profit is much smaller than the dealer's. In practice, the distributor's share of the equipment cost is 24%, the customer's share 36% and the dealer's share 40%. If you assume an average cost of $50 per installation, then you will have to invest $20 for each new customer that you obtain. Before you attain that desired net income of $5000 per year you will have to invest from $10,800 to $16,600 in gas equipment and containers, alone. Lest you become frightened at this amount I remind you that this investment is made only as you add customers and it is quite unlikely that you will land from 540 to 830 new customers in your first year or two.

If you intend to fulfill the functions of both distributor and dealer, your investment in gas equipment and containers for this number of customers would be from $17,000 to $27,000; and you would have at least $20,000 tied up in the cheapest bulk plant that you could build, but 830 domestic customers won't support a bulk plant.

Of course these figures are but approximate and they may even vary considerably in the territory where you intend to operate, but they do serve to bring out some facts.

PERTINENT DONT'S

1. Unless you know where to place your hands immediately on $30,000 and can see your way clear to raise by some means another $40,000 within the next three years, don't attempt a bulk plant operation.

2. Unless you can see your way clear to raise by some means $10,000 immediately, and can invest another $40,000 within the next three years, don't try the Fuel Contract plan.

3. Unless you can invest $5000 over the first year of your being in the gas business, don't try the Co-operative Plan.

4. Unless you have some other means of making a living until you have procured enough customers to make the gas business self-sustaining, don't go into the gas business on any plan.

All the big companies do business on other people's money.

There are operators who will take issue with these "dont's" and they will point with pride to many who have started in the gas business on a shoestring and have made a success of it. I do not say that it cannot be done, but it is a discouraging task without sufficient

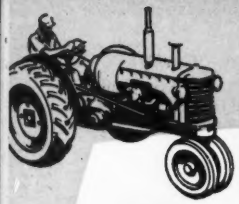
Unless you know where to place your hands on $30,000, don't attempt a bulk plant operation.

capital. Furthermore, most of these "rags-to-riches" successes started their uphill climb in the days when the liquefied petroleum gas business was smaller, profits were larger and the class of consumers attracted to it were those with moderate means. Today this business is big business and true to form it is sweeping onward on volume sales with smaller profits. To really get a start, it takes more capital than it did even five years ago.

Discouraged? You shouldn't be. If your conception of the gas business is a little one-man affair you would never get very far in it.

Did you ever stop to think that all of the big companies such as General Motors, General Electric, Westinghouse, and the mammoth oil companies do business on other people's money? If it weren't for stockholders, bondholders, banks, or financial organizations that make a business of furnishing large companies with necessary working capital, there isn't one of them that would survive a month. We think of them as impersonal robots but they are made up of little people such as you and me.

It is possible for you to control your own gas business and yet work with other people's money. We will see how this can be done in the next chapter.



SELWYN-

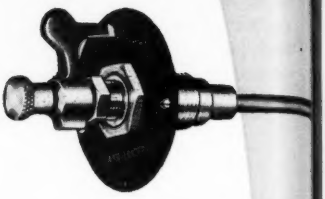
Engine Fuel Tank

610

1¼" Double Back Check Fill Valve

710

¾" Vapor Return or Equalizing Valve



No. 1—¾" Rotary Gauge

P-431

¾" Safety Relief Valve

1445-B

¾" SAE Service Shutoff Valve with Excess Flow Check for Liquid and Vapor Withdrawal

1446

¾" SAE Service Shutoff Valve with Excess Flow Check for Liquid Withdrawal with provision to install ¼" Dip Pipe.

10-BD

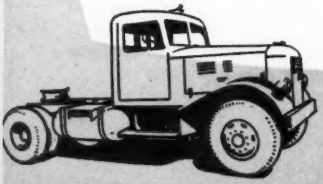
¼" Outage Valve with Tubs and Stop Filling Instruction Dial

640

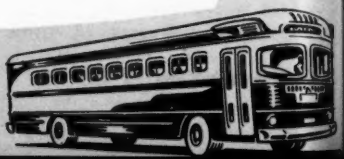
1¼" Double Back Check Fill Valve. The PW-200 Safety Hose Nozzle connects directly to this Valve.

PW-200

Safety Hose Nozzle. The standard method of fuel transfer for Buses, Trucks, Domestic Tanks and Bottles. (Send for Bulletin No. 101).



S-L

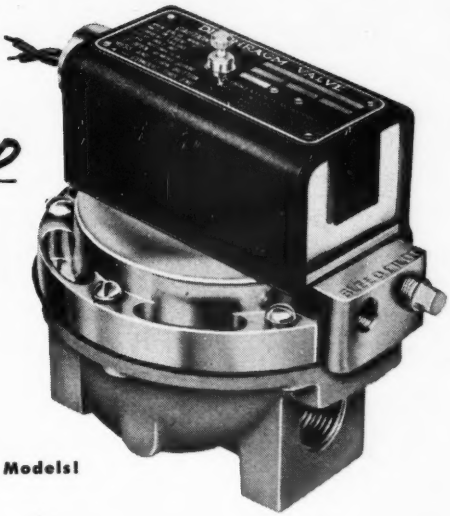


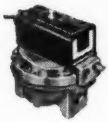
Announcing the

NEW, IMPROVED

Honeywell

Diaphragm Valve





Much Smaller Than Previous Models!

PERFORMS LIKE LARGE-SIZE VALVES

– FITS FAR SMALLER SPACES!

You'll say it's a triumph of engineering! This new V899 Diaphragm Gas Valve is even more dependable than Honeywell's popular V148 and V149 models—and retains *all* the performance features you've liked. All components thoroughly field tested. It equals or *exceeds* these older models in capacity. Yet it's much smaller over all!

That means faster, less costly installations —particularly in hard-to-get-at places. The new V899 is available in a full range of sizes from ¾" to 2" and is interchangeable with most solenoid valves. Manual opener with automatic recycling optional.

MINNEAPOLIS **Honeywell**

First in Controls

You'll want to switch to this new, better-than-ever model right away. For full facts, clip the coupon now—and mail it *today!*

MINNEAPOLIS-HONEYWELL
REGULATOR CO.
Minneapolis 8, Minnesota, Dept. BN-5-67

Gentlemen:

Please send me complete installation and service information about your new V899 Diaphragm Gas Valve.

Name_____

Firm Name_____

Address_____

City_____ Zone____ State____

Who's There and Where

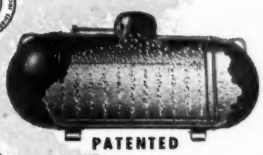
May 7-10-Exhibitors at LPGA Trade Show-Chicago

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
46	A-P Controls Corp. 2450 N. 32nd St., Milwaukee.	Floor furnace control; solenoids; thermo - electric valve.	R. W. Johnson, E. A. Vallee, A. A. Schubert, H. H. LaBohn, Milwaukee; D. G. Tmey, Chicago.
29	American Central Div., Avco Mfg. Corp., Connersville.	Kitchens.	
88, 89, 90	American Meter Co., 122 S. Michigan Ave., Chicago; 60 E. 42nd St., New York.	Meters & Pressure regulators.	Carl Collins; A. B. Cloud, New York; R. Menkemeller; D. Cousland; W. V. Stockton, Jr., Philadelphia; J. J. Cooney, Albany, N. Y.; W. T. White; Earle Cutter; C. D. Mitchell, D. Thompson; R. J. Arnold; W. S. Guitteau; W. B. Ashby, M. V. Howard.
38, 39, 40	American Stove Co., 1641 S. Kingshighway, St. Louis.	Ranges, heaters.	
16	Americana Corp., 333 N. Michigan Ave., Chicago.		
52	Anco Mfg. & Supply Co., 217 E. Archer, Tulsa.	Cylinders.	Paul R. Smith, W. M. Wattman, W. W. Wattman, Tulsa; B. B. Alderdice, Chicago.
70	Anderson Copper & Brass Co., 6742 S. State St., Chicago.	Tube fittings, valves, copper tube, service tools.	J. C. Loehr, Dallas; M. G. Anderson, Kansas City, Mo.; R. M. Anderson, V. J. Myers, D. V. Ytterberg, Chicago.
42	Black, Sivalls & Bryson Inc. Climax Controls Div., 15 N. Cincinnati, Tulsa.	Regulators & carburetion equipment.	R. G. Thompson & Tex Johnson, Tulsa.
69	Beals Advertising Co., 1503 NE 23rd St., Oklahoma City		

What a difference *Team Work* makes!

DELTA MIX-O-GAS SYSTEMS

Making real money these days requires more than just willingness to work. You need the right flair, the right merchandise, the right backing from the manufacturer . . . Consideration of dealer sales and profit records achieved to date on our Delta Mix-O-Gas Systems shows Delta furnishes what the average dealer needs most. Plans, merchandise, and advertising are really "hot". It's a good time to join the Delta team. We'll do our best to supply you as far as steel supplies permit.



PATENTED

DELTA TANK MANUFACTURING CO. INC.

P. O. BOX 1469, BATON ROUGE, LA. • P. O. BOX 1091, MACON, GA.
Export Office; Suite 110, International Trade Mart, New Orleans, U. S. A.
MANUFACTURERS OF LPG PRESSURE TANKS AND I.C.C. CYLINDERS

LPGA Trade Show Exhibitors - Page 2

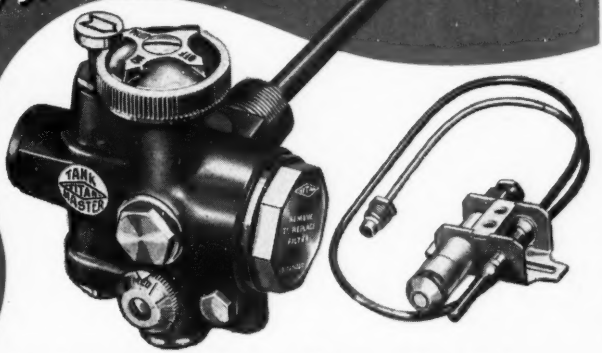
Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
66, 67, 68, 85, 86, 87	Bastian - Blessing Co., 4201 W. Peterson Ave., Chicago.	Cylinder, shutoff, multi, relief, filler, vapor return, excess flow, automatic cut-off valves; regulators; bottled gas outfits; liquid level gauges; control equipment.	A. A. Bloem, C. N. Chapman, A. B. Dally, L. D. Downing, R. H. Engstrom, E. M. Evleth, A. C. Fink, H. A. Goodwin, E. P. Guth, R. A. Johnstone, M. J. LaDue, Jr. & Sr., C. E. Lyall, J. W. Mahanay, W. N. McMillen, S. E. McTier, E. L. Mills, R. B. Murray, R. E. Poethig, G. R. Postlewait, G. Reynolds, K. Schram, R. H. Wherry.
58	Bowser, Inc., Incineration Div., Cairo, Ill.	Gas-fired incinerators.	J. G. Dierkes, J. D. Hamilton, Cairo.
75, 76	Bryant Heater Div., 17825 St. Clair Ave., Cleveland, Ohio.	Radiant panel heater, circulator, fan-circulator, floor & forced air furnaces; water heater.	J. N. Crawford, W. H. Wise, H. A. Kennedy, K. T. Davis, R. E. Duncan, D. Weimer, Cleveland; P. V. Cheli, P. V. Landgren, Chicago; L. F. Tinsley, Louisville; P. R. Hedback, Indianapolis; J. J. Rose, J. J. O'Connor, Atlanta; G. J. Ellis, E. V. Groeninger, Rockford, Ill.
135	Butane - Propane News, 198 S. Alvarado St., Los Angeles.	Butane - Propane News, Handbook Butane - Propane Gases, The Bottled Gas Manual, Annual Butane - Propane Catalog, "Operating an LP-Gas Business."	Paul Lady, Los Angeles; David Carmen, Chicago; Jim Gillam, Cleveland; Ray Schuster, New York.
55, 56, 57	Butler Mfg. Co., 13th St. & Eastern Ave., Kansas City, Mo.	Systems, transports.	
107, 108, 109	Caloric Stove Corp., Widener Bldg., Philadelphia.	Gas Ranges.	Julius Klein, Harold Tiley, G. Dwight Sutherin, L. H. Ernst, M. Batchelder, W. A. Anderson, L. McMillen, R. Ault, L. W. Abbott.
44	Cameron Iron Works, Houston.	Lift-plug valve.	V. G. Ibert & Ames Bliss, Houston.

LPGA Trade Show Exhibitors - Page 3

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
119	James B. Clow & Sons, 201 N. Talman Ave., Chicago.	Gasteam radiators.	Milton T. Clow, J. H. Clow, R. L. Ehrhardt, Chicago.
30, 31	Coleman Co., Wichita.	Wall heaters, space heaters, floor furnaces, water heaters; blend-air heating.	Carl Burrows, Louis Marks, J. R. MacDowell, H. W. Morton.
59	Conlon - Moore Corp., 1806 S. 52nd Ave., Chicago.	Combination gas ranges; heaters.	J. N. Foxx, Chicago.
117, 118	Cribben & Sexton Co., 700 N. Sacramento Blvd., Chicago.	Gas ranges.	Jack Schellenberg, Thomas L. Hanson, A. T. Carrow, R. M. Erskine, Alfred Bradtke, Chas. T. Dukes, Bernard Kewin.
84	Crown Stove Works, 4627 W. 12th Pl., Chicago.	Domestic ranges.	J. C. Rogers, J. J. Bates, Robert Bates, Webster Dax, Z. T. Caldwell, John Kelderhouse, James Smith.
133	Darlingas Co., Pratt, Kan.	Carburetion system.	Si G. Darling, Pratt; O. L. Garretson, Roswell, N. M.; Floyd A. Woolis, Mt. Pleasant, Iowa; C. D. Boden, Sioux Falls; Hugh D. Warren, Memphis.
80, 81, 82	Detroit - Michigan Stove Co., Detroit.	Domestic & commercial ranges.	L. E. Clancy, Paul Inskeep, Detroit; F. F. Hamilton, Atlanta; R. M. Houdek, Kansas City; Ward Jacobson, Niles, Mich.; C. M. Jewell, Syracuse; J. M. Storm, Dallas.
52	Dearborn Stove Co., Chi- & Dallas.	Complete line vented & unvented heaters.	A. Bobbe, Chicago; Fred R. Porta, Kansas City, Mo.; Richard Horst, Jersey City.
127, 128, 129	Delta Tank Mfg. Co., Baton Rouge, La.	Tanks, systems	

Presenting the TITAN

Tankmaster



An *Improved* Water Heater Control...

MANY NEW FEATURES GUARANTEE GREATER EFFICIENCY!

- **Larger Filter—a decided advantage—easily removed for replacement.**
- **Larger Capacity—61,500 B. T. U.—AGA Listed.**
- **Designed for use with all gases.**
- **Metal to metal valve and seat for all gases.**
- **Has Improved Titan Snap Action Mechanism.**
- **Safe Lighting—Main burner must be off before pilot will light.**
- **100% Safety Pilot—Gas shuts off if pilot light goes out.**
- **Higher operating efficiency.**
- **Milwaukee Gas Power Unit is replaceable, can be taken out without removing control from tank.**

The Titan Tankmaster will be manufactured in as large quantities as possible, depending upon the material situation.

THE TITAN VALVE & MANUFACTURING COMPANY

9913 ELK AVENUE • CLEVELAND 8, OHIO

LPGA Trade Show Exhibitors - Page 4

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
136	Detroit Vapor Stove Div., Merchandise Mart, Chicago.	Gas ranges.	S. M. Adams, J. P. Morgan.
41	Duo - Therm Div., Motor Wheel Corp., Lansing, Mich.	Floor furnaces, water heaters, & vented heaters.	Karl Egeler, Adolph Frantz, L. C. Vandertill, Bruce York, S. B. Baker, Lansing; J. K. Nelson, Decatur, Ill.
113, 114	Empire Stove Co., Belleville, Ill.	Recessed heating systems, gas floor furnaces, gas ranges.	Lee Brand, Belleville; Thomas M. Byrnes, Minneapolis; Ray Mills, Memphis; John A. Davis, New Orleans; Lew J. Rodauch, New York; George L. Strode, Louisville; George R. Strode, Kirkwood, Mo.; Kenneth C. Lever, Independence, Mo.; Ernest W. Rubin, Tulsa; Wm. G. Adair, Ft. Wayne; Herman W. Ottersky, Saginaw; C. H. Schutter, Des Moines.
155	Estate Stove Co., Hamilton, Ohio.	Ranges & heaters.	Gordon Hentz, Hamilton; W. L. Hemsworth, River Forest, Ill.
95, 96, 97	Fisher Governor Co., Marshalltown, Iowa.	Complete line of LP-Gas regulators & accessories; valves: appliance filters.	K. R. D. Wolfe, D. W. Elk, Glenn E. Eige, R. C. Lisk, Harold Wright, B. R. Roberts, Jack Clark, Richard Harvey, Marshalltown; W. H. Hoagland, Westport, Conn.; Ralph Meeder, Los Angeles; Cecil Squibb, Dallas; Odell Glass, Atlanta; Albert Fine, Chicago; Cecil Schutter, Des Moines.
53, 54	Florence Stove Co., 205 School St., Gardner, Mass.	Gas ranges & heaters.	A. L. Moyer, P. R. Bouillion, Chicago; C. F. Lucas, W. F. Muhlbach, C. O. Slaby, R. J. Johnson, Gardner, Mass.
45	Gas-Kit Co., Glastonbury, Conn.	Drills & drill sets; gas kits; reamers.	Joseph Falk, John F. Horahan, Glastonbury.
143	Hamilton Mfg. Co., Two Rivers, Wis.	LP-Gas clothes dryers.	C. H. Rippe, J. W. Christensen, C. W. Haley, A. J. Anderson, D. C. McDermand, Two Rivers, Wis.

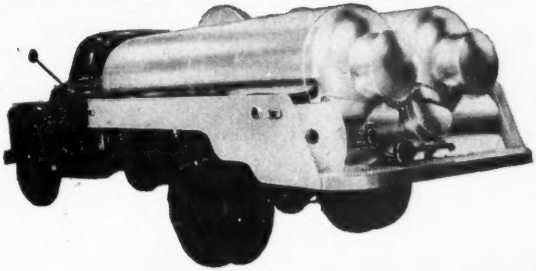
LPGA Trade Show Exhibitors - Page 5

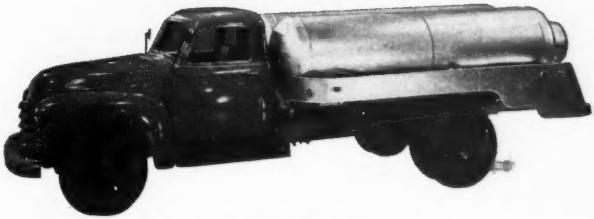
Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
146	Handley-Brown Heater Co., Jackson, Mich.	In-a-door conversion burner; water heaters; table-top water heater.	H. E. Handley, H. J. Rust, M. W. Boekeloo, W. Trittepo, J. P. McMorrow, Stanley Burt, John Hardy.
62, 63	Hardwick Stove Co., Cleveland, Tenn.	Domestic ranges.	R. B. Hurt, Reeves Brown, Hayes Davis, Cleveland, Tenn.; John F. Broerman, Cleveland, Ohio; H. E. Howerton, Kansas City, Mo.; Geo. Luehrman, Chicago; Van F. Leach, Atlanta; G. M. Rohde, Jr., Syracuse; Frank W. Weston, St. Louis.
138, 139	Harper - Wyman Co., 8562 Vincennes Ave., Chicago.	Burners.	
43	Harrisburg Steel Corp., Harrisburg, Pa.	LP-Gas cylinders.	J. T. Simpson, H. M. Reeser, Palmer Swecker, John Feeser, W. H. Long.
49	Herron Stove & Foundry Co., Chattanooga.	Radiant gas heaters & wall inserts.	John Leinart, Chattanooga; Marion Burnell.
149	Hollingsworth Stempel & Co., Ollie, Iowa.	High - compression inserts; gas manifolds.	Frank Andrews, Guido F. Stempel, J. W. Stewart, L. J. Adkins, Ollie, Iowa.
27, 28	Hunt Heater Corp., 220 12th Ave., Nashville.	Unvented & vented space heaters; wall & floor furnaces.	W. B. Hunt, Joe Jetton, Nashville; S. B. deFuentes, New Orleans; G. H. O'Neal, Wichita.
93	Imperial Brass Mfg. Co., 1200 W. Harrison St., Chicago.	Tube & brass pipe fittings; shutoff valves; tube cutters; flaring tools; tube benders.	C. H. Benson, R. Nelson, R. Cherney, R. Eme, A. E. Hallstrom, E. F. Todd, Chicago.
153	Indianapolis Stove Co., 716 S. Wesley Ave., Oak Park, Ill.	Heaters.	

LPGA Trade Show Exhibitors - Page 6

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
156, 157	Iron Fireman Corp., 3170 W. 106th St., Cleveland, Ohio.	Winter air conditioner; gas boiler; conversion burner.	B. B. Magee, Cleveland; George Armour, Chicago.
92	Johnson Gas Appliance Co., Cedar Rapids.	Stock tank heater & hog fountain heater.	Charles W. Johnson, J. J. Connolly, C. A. Gunther, Cedar Rapids.
103	Kerotest Mfg. Co., 2525 Liberty Ave., Pittsburgh, Pa.	Brass valves; valve for bulk plant service.	H. Glenn Dickenson, Tulsa; Austin Jones, Toledo; H. Paul O'Brien, New York; R. W. Meuller, Jr., James A. Norris, Pittsburgh.
116	D. H. Krug Co., Madison, S. D.	Hand pump.	Don H. Krug, Madison, S. D.
71, 72	Linde Air Products Co., 30 E. 42nd St., New York.	LP-Gas cylinders.	E. B. Farwell, T. T. White, H. T. Neat.
111	LP-Gas Insurance Underwriters Agency, New York Life Bldg., Kansas City, Mo.	Booth devoted to insurance problems.	Louis H. Collar, Kansas City, Mo.; William O'Conners, Robt. L. Dahme, Chicago. Marc MacCollum, Charles Haskins, Glen Royer.
112	LP-Gas Magazine, 9 E. 38th St., New York.		Marc MacCollum, Charles Haskins, Glen Royer.
25	Local Trademarks, Inc., New York.	Complete newspaper campaign on "Bee-Gee."	R. F. Purpus, New York; Howard Johnston, Chicago.
60	National Committee for LP-Gas Promotion, 11 S. La Salle St., Chicago.	Progress of program.	Robert E. Borden, M. A. Ennis, George J. Schulte, Jr., Chicago.

Deluxe Model Twin Barrel Truck Unit

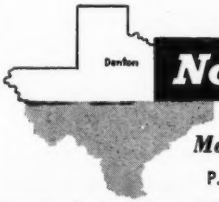




- Production Built Production Priced
- High Tensile Steel—Light Weight
- Safe Two Recessed Relief Valves in Each Tank
- Exceptionally Well Balanced
- No Frame Reinforcing Necessary
- Tried and Proven by Dealers Throughout the United States
- Motor Fuel Tank in Rear Well Protected
- Built in Sizes to 1800 Water Gallons Standard Size 1250 W.G.

54" Single Barrel Truck Units Also Available

Prices and Complete Specifications on Request



North Texas Tank Co.

Manufacturers of Fine LP-Gas Equipment

P. O. Box 519 • Denton, Texas • Phone 146-1323

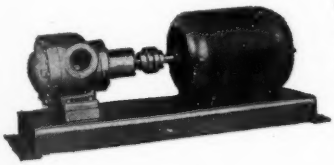
Motor Fuel Tanks • Domestic Tanks • Transports • Tank Trucks • Tractor Motor Fuel Tanks

LPGA Trade Show Exhibitors - Page 7

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
17, 18, 19	Norman Products Co., 1150 Chesapeake Ave., Columbus, Ohio.	Conversion burners; up-right furnace; gas heaters.	E. A. Norman, Jr., D. D. Piper, W. R. Sundermeyer, D. A. Ruen, Russell G. Dawley.
134	Norris-Thermador Corp. Los Angeles.	Propane cylinders.	R. G. Smith, Pasadena; R. J. Mastick, Alhambra, Calif.; L. A. Parker, So. Pasadena, Calif.
152	Odin Stove Mfg. Co., 342 W. 12th St., Erie.	Domestic ranges.	K. C. Hampel, E. K. Hampel, M. J. Kerr, G. S. Chamberlain, Erie.
36	Ohio Foundry & Mfg. Co., Steubenville, Ohio.	Vented, unvented, & radiant model heaters; fireplace logs.	Geo. H. McFadden, Harry E. Thompson, Steubenville; Carl G. Lioen, Fentress, Texas; E. C. Brandt, Cedar Falls; T. W. Hukill, Kansas City, Mo.; H. H. Hawthorn, Tulsa; Harry Richards, Grand Rapids; A. I. Wallace, Chicago.
154	Okadee Co., 332 So. Michigan Ave., Chicago.	Valves.	K. W. Hebner, C. G. Learned, R. H. Willhoit, W. P. Becker, E. L. Cull.
14, 15	Barney Olson, Inc., 122 S. Michigan Ave., Chicago.	Heaters.	R. A. Olson, F. F. Streff, T. R. McKnight.
21	Pacific Industrial Products Co., 7000 Avalon, Los Angeles.	Valves & Fittings.	Lester Deutsch, Los Angeles.
120, 121, 122	Pressed Steel Tank Co., Milwaukee.	Propane & high pressure cylinders; fuel tanks for automotive applications.	Herman Merker, N. A. Evans, C. E. Stender; Ross Dean, E. C. Bartlog, Milwaukee; R. A. Hirst, E. Elliot Jr., R. H. Dieckelman, Richard Knapp, A. S. Cheyne, M. S. Schmidt, T. V. Montgomery.
61	Ray-Glo, Inc., Shelbyville, Ind.	Heaters.	
12, 13	Remington-Rand, Inc., 315 4th Ave., New York.	LP-Gas office equipment & systems.	H. B. Matheny, B. J. Fahs.

14 MODELS OF SMITH PRECISION Butane-Propane PUMPS

FOR ALL TYPES OF Truck / Bulk Plant SERVICE



For economy, select a Smith Pump that fits your needs exactly. Every service may be handled from fast filling of 20 lb. trailer bottles to loading and unloading of truck transports in record time. Capacities range from 4 to 150 gallons per minute. Truck pumps are designed for direct connecting to power take-off at 500 and 900 rpm shaft speed. Bulk plant models direct connected to electric motor are for 1800 and 3600 rpm shaft speed. Write to the factory if you need help with your particular pumping problem. Ask for literature and prices.

SMITH PRECISION PRODUCTS COMPANY

1135 MISSION ST., SOUTH PASADENA, CALIF. • PHONE PYRAMID 12293

LPGA Trade Show Exhibitors - Page 8

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
73, 74	Rheem Mfg. Co., 570 Lexington Ave., New York.	Water heaters; winter air-conditioners.	C. T. Miller, E. F. Cassidy, V. J. Heinis, R. W. Cooke, E. E. Elliott.
131, 132	Robertshaw-Thermostat Div., Robertshaw-Fulton Controls Co., Youngwood, Pa.	Thermostatic controls.	
83	Rockwell Mfg. Co., Pittsburgh Equitable Meter Div., Pittsburgh, Pa.	Flow indicating & domestic gas meter; appliance regulators; piston meters; valves.	C. E. Muehlberg, R. A. Johnston, P. C. Kreuch.
145	L. C. Roney, Inc., 1511 W. Florence Ave., Inglewood, Calif.	Valves, fittings, regulators.	
104, 105	Ruud Mfg. Co., 2934 Smallman St., Pittsburgh.	Water heaters.	F. A. McFerran, H. B. Kivlan, R. C. W. Olsen.
77, 78, 79	Scaife Co., Oakmont, Pa.	Gas cylinders; accessories.	E. S. Sedlachek, C. E. Johnson, Oakmont; F. E. Thelen, C. B. Albert, W. W. Kurtz, Chicago; G. J. Asbee, New York; R. W. Rassbach, Washington, D. C.
99, 100, 101, 102	Geo. D. Roper Corp., Rockford, Ill.	Domestic ranges; pumping equipment.	S. H. Hobson, E. C. Sorby, N. C. Kreuter, Pierre Vinet, R. F. Dickerson, Don Hadden, Rockford, Ill.; J. K. Busch, Detroit; J. M. Phillips, Kansas City, Mo.; W. J. Foster, Philadelphia; W. G. Parks, Omaha; J. H. Fagan, Jr. & Sr., Milwaukee; N. McManamy, Cincinnati; V. T. Miller, Denver; M. B. Kammerer, Washington, D. C.; R. E. MacIntosh, Boston; J. C. Mansfield, Dallas; H. R. Crittenden, E. H. Bigden, Chicago.

LPGA Trade Show Exhibitors - Page 9

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
98	Selwyn - Landers Co., 4709 E. Washington, Los Angeles.	LP-Gas valves & fittings.	Ralph Meeder & P. A. Smith, Los Angeles.
125, 126	Servel, Inc., Evansville, Ind.	Gas refrigerators, water heaters.	
50	Siebring Mfg. Co., George, Iowa.	Tank heaters, hog troughs, hot & stock pans, tractor loader, steam boiler, steam cleaner, dehydrator.	Owen Siebring, George, Iowa.
4, 5, 6, 7, 8	A. O. Smith Corp., Milwaukee.	Water heaters; boilers; conversion burners; LPG systems; cylinders; transfer pumps; dispensing pumps; carburetion equipment; motor fuel tanks.	J. P. Parker, L. H. Hoelter, J. S. Robinson, Leonard Campbell, K. E. Stevens, W. M. Beck, G. H. Yandell, E. J. McVoy, H. L. Schmidley, C. T. Hendrix, J. H. Brinker, G. H. Nichols, W. W. Stake, C. L. Tracey.
137	Sprague Meter Co., 35 South Ave., Bridgeport, Conn.	Gas meters & regulators.	E. R. Werthman, H. R. Pierce, Dana Paige.
94	Squibb - Taylor, Inc., 1213 S. Akard St., Dallas.	Visible gauges.	Cecil Squibb, Clif Squibb, Dallas; Sig H. Goranson, Memphis.
91	Stampings, Inc., Davenport, Iowa.	Complete line of cylinder housings.	Dan W. Quail, Fred B. Weaver, Oscar Fauser, Dale J. Hermes.
147	Steel Cooperage Div., Serrick Corp., 4801 Bellevue Ave., Detroit.	Cylinders.	
110	Stewart - Warner Corp., 1514 Drover St., Indianapolis, Ind.	Wall furnace & zone heating unit.	H. W. Milner, Harold Steffy, Al Weinbrecht, R. C. Overmyer.

LPGA Trade Show Exhibitors - Page 10

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
37	Super - Chef Mfg. Co., 1 Main St., Houston.	Deep fat fryers.	Phillip M. Pappas, W. L. Beveridge Jr., Houston; Jas. H. Kennedy, Atlanta.
115	Superior Valve & Fittings Co., 1509 W. Liberty Ave., Pittsburgh, Pa.	Operating cylinder valves; spring-loaded safety devices, pigtails, charging hoses, SAE flare fittings.	I. A. Wilson, Chicago; F. N. Robson, J. W. Overend, W. C. Yocum, Pittsburgh.
9, 10, 11	Surface Combustion Corp., Toledo.	Heating equipment.	
141, 142	Tappan Stove Co., 250 Wayne St., Mansfield, Ohio.	Gas ranges.	Mrs. Pauline Treisch, Mansfield; C. C. Wilson, E. C. Greene, C. R. Aungst, C. W. Bonar.
148	Tennessee Stove Works, Chattanooga.	Ranges.	L. H. Caldwell, Jr., Chattanooga.
151	Trageser Copper Works, 5000 Grand Ave., Maspeth, L. I., New York.	Propane cylinders.	Edward Rasmussen, Elmhurst; Jack Neuman, St. Albans; Francis X. Clark, Levittown. (All Long Island.)
150	United States Air Conditioning Corp., Como Ave. S. E. at 33rd, Minneapolis.	Unit heater; blower-type unit heaters.	William Moiselle, Leonard Gordon.
A, 65	United Petroleum Gas Co., 806 Andrus Bldg., Minneapolis.	Systems & cylinders.	F. T. Carpenter, F. H. Andrews, S. R. Navickas, A. Delau, L. A. Swanson, E. P. Piper, G. M. Ross, R. J. Bell, W. A. Stange, Ed O'Brien, Minneapolis; C. A. Ballard, Jackson, Miss.; J. Nunan Davenport; J. W. Upp, Cincinnati; D. A. Larson, St. Louis.

LPGA Trade Show Exhibitors - Page 11

Booth	Exhibitor & Home Address	Products Shown	Attending Personnel
140	Waldorf Heater Co., 1421 Chestnut St., Philadelphia.	Water heaters.	John F. Walsh, Philadelphia; Herman Ottersky, Saginaw, Mich.; Norris Blanchard, Omaha; Walter Williams, Belleville, Ill.; William Webster Jr., Norfolk, Va.; Roger Burk, Minneapolis.
158, 159, 1, 2, 3	Weatherhead Co., 300 E. 131st St., Cleveland, Ohio.	Bottled gas equipment; regulators & assemblies; cylinder & shutoff valves; ICC cylinders; tank-fitting equipment; motor fuel tank equipment.	L. A. Burns, Dallas; Harold Graviss, Kansas City; C. W. Vogt, Albany, N. Y.; J. D. Hill, Atlanta; C. P. Kelsey, Orlando, Fla.; C. R. Whitehorne, Collingswood, N. J.; A. J. Tirpak, Minneapolis; J. D. Charton, Little Rock; Frank Hribar Jr., G. E. Tanker, C. H. Boylan, T. A. St. Clair, A. G. Johnson, A. J. Weatherhead Jr., Morris H. Wright, J. D. Baldwin, T. V. Scott, W. H. Harper, R. A. Miller, B. W. Shellenbach, John G. Guardiola, Cleveland; J. S. Dunford, Montgomery; Norman Kilmer, A. Leigh Taylor, St. Thomas, Ont., Canada.
48	Weldit, Inc., 990 Oakman Blvd., Detroit.	LP-Gas & atmospheric torches; cutting torches; plumbers' pots.	William E. Massey, J. C. Smith, Detroit.
35	Well Equipment Mfg. Co., Houston.	Automatic control for main discharge lines.	H. J. Hagn, T. T. Word Jr., Houston.
106	Whirlpool Corp., St. Joseph, Mich.	Gas clothes dryer.	
47	Wilcolator Co., Elizabeth, N. J.	Gas thermostats; Oven-Reddy.	R. H. Maurer Elizabeth, N. J.
144	A. R. Wood Mfg. Co., Luverne, Minn.	Gas poultry brooders.	A. R. Wood, Santa Cruz, Cal.; D. M. Lippi, Luverne, Minn.
123, 124	John Wood Co., 100 Washington St., Conshohocken, Pa.	Water heaters.	George Meehan.

LPGA's 20th Annual Convention Opens in Chicago, May 7

PETER ANDERSON

SEN. KARL MUNDT

UNITED States Senator Karl E. Mundt, South Dakota, one of the leaders in the fight against Communism in America today, will officially open the Liquefied Petroleum Gas Assn.'s 20th anniversary convention in Chicago at the luncheon, May 7. The prominent political figure will take his subject, "Today's Challenge to Our World."

Senator Mundt, as a member of the House Committee investigating Un-American activities prior to his induction into the Senate, had the opportunity to make first-hand studies of Communism in this country and in virtually every Communist-dominated country abroad. He is noted for his wit, philosophy and forceful delivery and is in great demand by forums, educational groups and business organizations.

The convention and trade show, May 7-10, is expected to draw 2000 visitors to the Stevens hotel. The sessions are open to everyone in the industry, whether a member of the association or not.

Speakers at the May 9 and 10 luncheons will be Dr. Cylvia Sorkin and James E. Pew, respectively. Dr. Sorkin will speak on public relations and salesmanship in an address entitled "Your Personality is Showing, Sir." Mr. Pew, Solgas division of Sun Oil Co., Director of the Natural Gas and Natural Gasoline division, Petroleum Administration for War, during World War II, will forecast the probable effect of the present international emergency on the LP-Gas industry. There will be no official luncheon May 8.

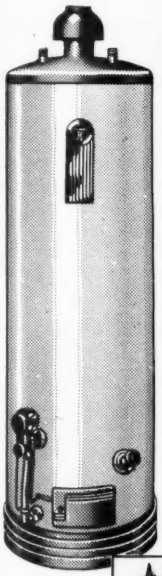
The general session will begin at 2 p.m., May 7, and will feature Howard D. White of Chicago, executive vice president, LPGA; Lee A. Brand, vice president of Empire Stove Co., chairman of National Committee for LP-Gas Promotion; and Peter A. Anderson of Portland, Maine, president of the LPGA, who will open the first business session.

Mr. White will open the general session with a report on developments in the nation's capitol which affect the LP-Gas industry. He has been spending most of his time in Washington during the past few months.

Recent developments in the National LP-Gas Promotional Program will be disclosed by Mr. Brand and President Anderson will give the president's report and preside at the business session.

The six sections of LPGA—Appliance Manufacturers, Equipment Manufacturers, International, Marketers, Producers, Utilities—will present individual meetings on the afternoon of May 9.

EVERY STEP IN THE RHEEM RELIABLE DEALER PROGRAM IS PLANNED TO **STEP UP YOUR INCOME!**



SELL UP SIZE UP with RHEEM

Every time you increase your unit sale, you increase your profit.

Every Rheem national advertisement . . . promotion piece . . . point-of-sale display is designed to help you increase your unit sale.

Every model in the Rheem line is planned the same way. For here is the world's most complete line of water heaters. Here is the line that steps up in easy stages . . . making it simple for you to sell prospects UP to the larger sizes they need . . . UP to the higher quality that gives most for their money . . .

. . . UP to the higher unit sale that's your best bet for higher profit TODAY!

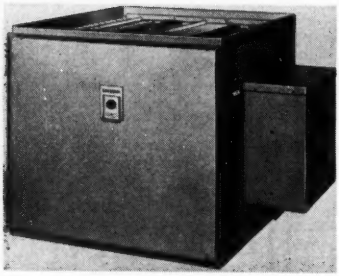
Rheem R

World-famous for Automatic Water Heaters, Gas-Fired Heating Equipment, Domestic Tanks and Boilers, Steel Shipping Containers

Rely on Rheem

570 Lexington Avenue, New York 22, N.Y.

Products



American Standard Air Cleaner.

Air Cleaner

American Radiator & Standard Sanitary Corp., P. O. Box 1226, Pittsburgh, Pa.

Model: Magne-Filter.

Application: Removes pollen, airborne bacteria, and other microscopic particles through electrical attraction by installation in the return duct of heating or cooling systems.

Description: The electronic, dry-type air cleaner is made in sizes to meet all residential installation requirements.

Seven sizes are available having two to eight filter cells and with air volume up to 600 cu. ft. per minute for the smallest size and from 2100 to 2400 cu. ft. per minute for the largest. These sizes are applied to heating units with 64,800 Btu per hour for the smallest size and from 227,000 to 259,000 Btu for the largest.

The electrostatic action is produced by a power pack. It steps up the regular 110 volt lighting current to a higher potential and charges it, with rectifier tubes, from alternating to direct current. The current is then applied to the filter cells through metal grids. The filter consumes about as much electricity as a 25-watt bulb. It requires no water or drainage connections.

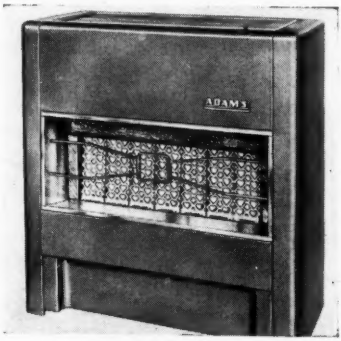
Radiant Circulator

Adams Bros. Mfg. Co., Inc., 1500 W. North Ave., Pittsburgh 33, Pa.

Models: Cheerfulators 300RU and 220RU.

Application: Domestic, light commercial and utility.

Description: Fully automatic in operation, these circulators are said to produce a maximum amount of unrestricted radiant heat before the heat exchange occurs. The reverse flow heat exchanger has tubular



Adams Bros. Circulator.

areas that give greatly increased air circulation capacity. Controls are rigidly mounted in place and operation is tested at the factory. Gas pipe and vent connections are all that is necessary to installation.

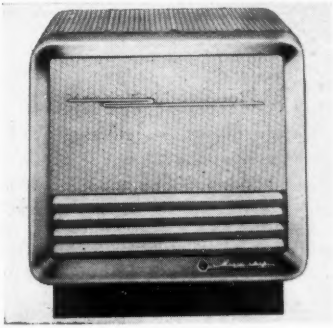
Space Heater

American Stove Co., 1641 S. Kingshighway Blvd., St. Louis 10, Mo.

Model: Magic Chef, 1107 Series.

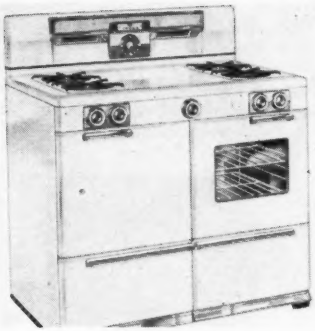
Application: Domestic. (Also available in larger 1127 and 1137 Series).

Description: Available in "hi-boy" and console, circulating and radiant units, the line reflects a new departure in space heater design. Fully vented, the units employ the advantages of convection and radiation for increased heat diffusion.



Magic Chef Heater.

Features include baked cordovan enamel finish, suntan radiant screen, turquoise ornamental door (louvered), three-way heat flow, balanced heating performance, scientifically designed flue for improved efficiency in gas travel, electrically welded combustion chamber, universal raised-port cast iron burners and large side-access door for convenient lighting and servicing.



Crown Range.

Domestic Range

Crown Stove Works, 4627 W. 12th Pl., Chicago, Ill.

Description: An entirely new design has been developed with a backguard featuring a new-type lamp, blending with electric clock, nameplate and chrome vent strips. Touches of color have been added to certain parts and the handle arrangement is designed off-center to add beauty to the lines.

Top burners incorporate center simmers to simplify surface cooking. The "Even-Action" Crown oven features a top center flue which is said to assure heat circulation, even browning and thorough cooking of baked, roasted and other oven-prepared foods.

Commercial Broiler

Detroit-Michigan Stove Co., Detroit 31, Mich.

Model: Garland Broiler.

Description: New improvements include 14-in. back flue for positive and effective control of smoke vapors; new "floating" grid rods that can expand under intense heat and so prevent warping; newly designed exte-

rior with unbroken front, permitting easier, faster cleaning; and deeper oven area.

Heavy, ceramic radiants, distributing intense heat evenly from two separately-controlled multi-port burners, have been retained.

Garland Broiler.

Open-Front Heater

Duo-Therm Div., Motor Wheel Corp., Lansing 3, Mich.

Model: Chippendale 1410 and 1460.

Description: This model is available in 50,000 or 65,000 Btu input capacities. It features an "Equaflame" burner, optional power-air blower for economy, period furniture styling with mahogany finish, optional mechanical or electrical thermostat, flexible down-draft diverter, and radiant doors.

The heater has three-way heating comfort: from natural circulation, spot radiant heat, and forced power-air blower circulation. Its controls are either all-in-one manual pilot or safety pilot control type.

Duo-Therm Heater.

Fully vented, the heater is approved for use with LP-Gas as well as all other gases.

Domestic Range

Empire Stove Co., Belleville, Ill.

Model: No. 38-1.

Description: This new model has been placed in the low-priced field. It features an "extra-capacity" oven, "glide-out" broiler and "touch-latch"

Empire Range.

storage compartments at each side. Knobs and handles are deleted as compartments open by touch of the finger.

Other models include 42-in., 6-burner and 4-burner divided tops. Single or double ovens with high or low broilers, regulator, timer, oven light, and 2½ in. insulation.

Domestic Range

Estate Stove Co., Hamilton, Ohio.
Model: No. 5042.

Description: One of the features offered on this new gas range is the "Hide-Away Grid-All," which is used for grilling meats, pancakes, fruits and vegetables. Centered in the cooking top, the unit is designed to automatically drain off cooking fats and greases. The "Converto-Grate" is a new accessory that may be used to replace the "Grid-All" and which converts it into a giant burner, one

Estate Range.

foot square, capable of heating large pressure cookers, kettles or utensils up to 21-quart capacity.

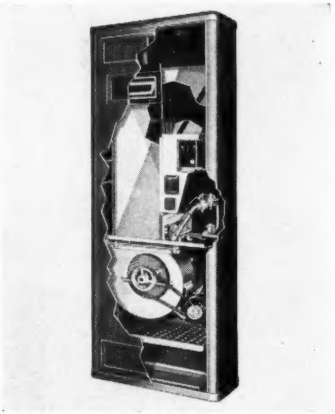
The new model also incorporates an oven with view window, broiler and "Bar-B-Kewer."

Gas-Fired Furnace

Ingersoll Products Div., Borg-Warner Corp., 760 E. Vine St., Kalamazoo, Mich.

Model: Ingersoll GHSS gas-fired furnace.

Application: May be used as a vent-



Ingersoll Furnace.

ed wall heater, space heater, and utility furnace inasmuch as the base requires less than 3 sq. ft. of floor space.

Description: As a furnace, heat may be delivered in any direction through ducts connected to front, sides, back, or top of cabinet. As a space heater, low resistance grills furnish maximum warm air circulation with minimum resistance. A wedge-tube heat exchanger is featured. The use of a built-in plenum chamber and draft diverter keeps installation costs down. The assembly includes specially designed wedge-tube heat exchanger, blower, filters, raised drill port burners, and fully automatic controls.

The gas-fired furnace is AGA-

To Meet and Beat Electric Competition

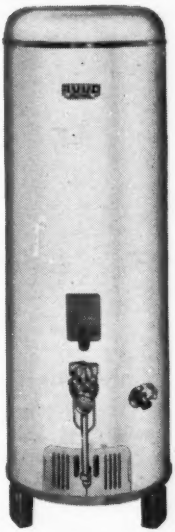
RUUD 1951

L. P. GAS MODELS FEATURE

Faster Recoveries

Higher *Performance-Ratings . . .

Advanced Engineering



Ruud 1951 automatic storage water heaters have been engineered to make the best possible use of critical materials, with Recovery and Performance-Ratings stepped up to better meet the heavier demands imposed by automatic clothes and dishwashers. Two Series, seven models, to fill every domestic hot water requirement. First two digits of model number indicate Storage-Rating, second two, Recovery-Rating. Sum of two sets is the *Performance-Rating.

RUUD-MONEL SERIES

Three models, all with selective temperature to 180°, all with solid rust-proof Monel tanks:

Model M21-21, Performance-Rating 42 gallons. For small families with average general demands and limited laundering demands.

Model M30-30, Performance-Rating 60 gallons. For families of average size with average general demands and maximum normal automatic laundering demands [3 successive washer loads].

Model M30-36, Performance-Rating 66 gallons. For above average sized families with normal automatic laundering demand, or average size families with above average laundering demands. This model will supply hot water for continuous operation of most automatic clothes-washers.

RUUD-HISPEED SERIES

Four models, with selective temperatures to 160° degrees. Heavy duty galvanized-steel tanks, internal flue design:

Model H20-21, Performance-Rating 41 gallons. For small families with average general demands, limited laundering demands.

Model H30-25, Performance-Rating 55 gallons. For average-sized families with average general demands, two to three load automatic washer demands.

Model H45-36, Performance-Rating 81 gallons. For families of above average size, two bathroom homes. Will operate all makes of domestic automatic washers continuously.

Model H70-42, Performance-Rating 112 gallons. For large homes with heavy demands. Also for limited use commercial installations.

RUUD PRODUCTION NEWS

Ruud Production is determined by the materials supply—Monel, steel, zinc, copper. Monel, in particular, is short because it is a vital war material. During this period when Ruud water heaters will be made in limited numbers, high manufacturing and performance standards will be maintained.

Repair parts stocks will be available for maintenance of Ruuds now in use.

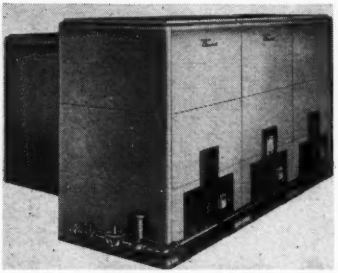
MEMBER national LP-GAS PROMOTIONAL program

*PERFORMANCE-RATING is the total possible one-hour capacity in gallons at 160° (or equivalent), starting the hour with a full tank of 160° (or equivalent) hot water.

RUUD MANUFACTURING COMPANY, Pittsburgh 1, Pa.

Also makers of Commercial & Industrial water heaters . . . . . The Ruudiator House-heating Boiler

approved as a vented wall heater and forced air furnace for use with LP-Gas.



Mueller Furnace.

Winter Air Conditioner

L. J. Mueller Furnace Co., 2005 W. Oklahoma Ave., Milwaukee 15.

Model: Climatrol Type 105.

Application: New sizes were especially developed for heating larger residences, apartments, schools, commercial buildings and churches.

Description: Now available in sizes from 300,000 to 675,000 Btu input, the new units are similar in construction to the older models, except more than one heat exchanger is employed under one casing. A standard blower-filter unit is used together with a transition piece at the back to connect the furnace casing and the blower-filter unit. The units employ one gas burner manifold with individual safety valves and pilots for each burner.

The furnaces are AGA-approved for LP-Gases.

Lowboy Heater

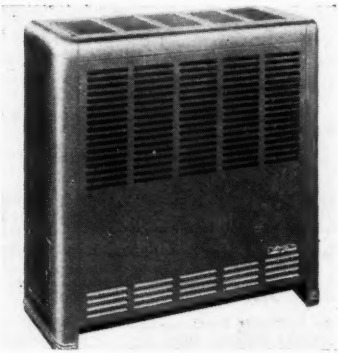
Ohio Foundry & Manufacturing Co., Steubenville, Ohio.

Model: Brilliant Fire.

Description: A completely revised heating section for the lowboy and forced air series of vented circulators has been developed by the company. The heating sections are "100% vented," which means that the company has obtained full AGA rated input at high altitudes and thus has high altitude approval at 100% of Btu per hour input rating. This approval does not come from the AGA but comes from the local authorities at the various locations.

The heating section is also 100% welded. The company has also incorporated a series of indentations in the form of circular "dimples" which are used to eliminate "oil can" action on heating and cooling.

The series is furnished in a new, smooth soft gray color called "opalescent beige."



Ohio Foundry Heater.

Panel Heater

Peerless Manufacturing Corp., 14th and Ormsby, Louisville 10, Ky.

Models: No. 5901 and No. 5903.

Application: Domestic and light commercial.

Description: Approved by AGA for use with LP-Gas, wall furnaces in

National Distributors of

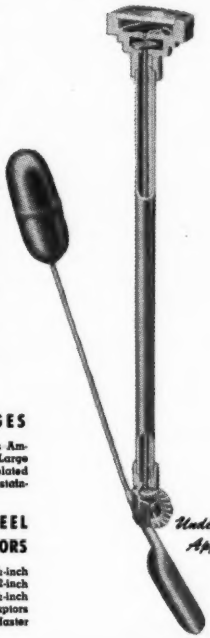
PRECISION MADE

VISIBLE

MAGNETIC

FLOAT GAUGES

- Nickel plated heads at no extra cost.
- Large dial face with plexiglas crystal. Moisture sealed out.
- Alnico magnetic pointer and Alnico magnetic drive.
- Steel float collapse-tests exceed 1000 pounds per square inch.
- Float rod of spring steel cast into gear and counterweight assembly.
- One-piece gear with shrouded teeth on stainless steel bearing.
- Tubing and drive shaft of corrosion resistant aluminum alloy.



Underwriters Approved

"MASTER" VISIBLE GAUGES

For LP-G and Anhydrous Ammonia storage tanks. Large 8-inch dial with chrome plated rim. All moving parts of stainless steel.

BRASS and STEEL MOUNTING ADAPTORS

Forged brass with 1½-inch thread. Forged steel with 2-inch thread. Steel with 2½-inch thread. Steel welding adaptors for Junior, Senior and Master gauges.

ANHYDROUS AMMONIA LIQUID LEVEL GAUGES

Please ask for details on this exceptionally fine precision instrument.

QUALITY LP-GAS EQUIPMENT

We carry warehouse stocks and are exclusive factory representatives in the South and Southwest for—

FISHER GOVERNOR COMPANY
Regulators and Accessories

SELWYN-LANDERS COMPANY
LP-Gas Tank Valves and Fittings

S & L MANUFACTURING CO.
Forged Steel Couplings

Also, we carry products of the following manufacturers in stock:

DIXON VALVE & COUPLING
Boss Couplings

WOLVERINE TUBE DIVISION
Copper Tubing

GATES RUBBER COMPANY
LP-G Hose and Fittings

PEERLESS MANUFACTURING CO.
LMC Pumps for LP-Gas

RANSOME COMPANY
Torches and Heating Furnaces

ROCKWELL MANUFACTURING CO.
House and Truck Meters and Appliance Regulators

STAPO CHEMICAL COMPANY
Hand Cleaner

RADIATOR SPECIALTY COMPANY
Titeseal

We supply many other items for LP-Gas Dealers, including—

- **LP-G CYLINDERS**
- **FLARE FITTINGS**
- **RANGE CONNECTORS**
- **RANGE VALVES**
- **GAS COCKS**
- **STOVE CONNECTORS**

IMMEDIATE DELIVERY FROM OUR DALLAS OR MEMPHIS WAREHOUSE

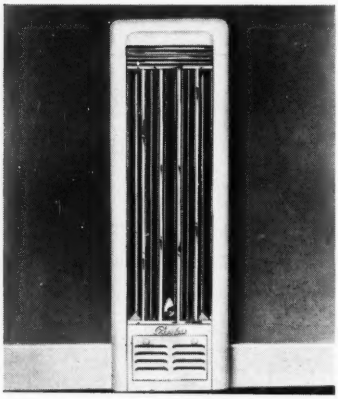
SQUIBB TAYLOR
INCORPORATED

2545 Summer Avenue
Memphis, Tennessee

1213 S. Akard Street
Dallas, Texas

both models come equipped with the "Baso" automatic safety pilot. Also available is the self-contained "Unitrol" or wall-type thermostat for automatic temperature control. The "rib" design is said to provide extra radiating surface and baffles retard ascending hot gases, deflects them to the sides of the heating sections, thus achieving high heat recovery.

Front frame is finished in satin ivory baked enamel, guard bars are



Peerless Wall Furnace.

chrome and heating section is finished in tan high heat porcelain enamel.

Model 5901 is 50⅞ in. high and is rated at 16,000 Btu. Model 5903 is 59⅝ in. in height and is rated at 22,500 Btu.

Domestic Range

Phillips & Buttorff Manufacturing Co., 217 3rd Ave. N., Nashville, Tenn.

Model: Enterprise.

Description: One of a completely new line, this range is a 38-in. model available with a variety of features

Phillips & Buttorff Range.

including waist-high or low smokeless broilers, fluorescent, built-in lamp, look-in oven door with light, simmer-set top valves, and automatic oven ignition. Also included on these ranges are extra large, tank-type ovens with ample depth for large roasters and height to permit proper use of both racks at various levels. All steel parts are finished in acid-resisting porcelain enamel.

Other sizes available are 20-, 30-, and 36-in. models.

Servel Refrigerator

Servel Inc., Evansville 20, Indiana.

Model: Royal Tudor BR-1118.

Application: A domestic refrigerator, adaptable for use in commercial and light-commercial plants.

Description: Servel's new Royal Tudor design presents separate doors for freezer and general food compartments. Other prominent features include an odds and ends basket directly below freezer compartment, tall bottle lift-out section, "Unichrome" shelves, lock-in-shelf adjusters for raising and lowering shelves with ease and simplicity, divided shelves for half-section lift-outs, dew-action fresheners for storage of fruits

99 out of 100 say "Skelgas"

deal with folks who have grown up with the LP Gas business . . . from pioneering days! You're backed by Skelly's own producing wells and manufacturing plants . . . Skelly's own fleet of tank cars . . . more than 80 conveniently located bulk plants that often "save the day" when emergencies come up. Plus merchandising and advertising power unmatched in the field! You can put your trust in Skelgas . . . your customers' buy-word for fine domestic and industrial fuel!

Ask the next person you meet "What's the best-known name in LP Gas?" 99 out of a 100 will say "SKELGAS!" Plenty of good reasons for this overwhelming popularity! Purity and uniformity that keep customers smiling! BTU values that keep appliances operating at top efficiency!
And when you deal with Skelgas, you

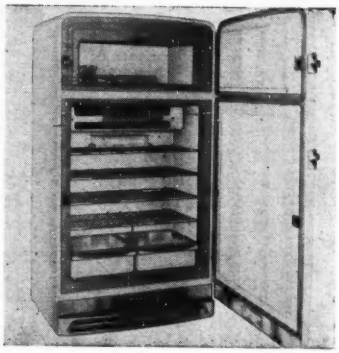
Skelgas PROPANES and BUTANES

DIVISION OF SKELLY OIL COMPANY MARKETING HEADQUARTERS, KANSAS CITY, MISSOURI

and vegetables, and temperature control which automatically maintains a constant, balanced cold.

Model BR-1118 is of 11.5 cu. ft. capacity, is 65⅝ inches high, 34⅝ inches wide and is 31⅛ inches in depth with hardware.

The full-length Tudor design comes in the 11.5 cubic feet capacity model only, although Servel features single-door, full-width freezer compartment models in the Royal BR-917 and BR-816.



Servel Refrigerator

Deep Fat Fryer

J. C. Pitman & Sons, Inc., Lynn, Mass.

Model: Pitco Frialator No. 14.

Application: Designed for short-order frying in restaurants, cafeterias, hotels, clubs, roadside stands, etc.

Description: This unit is 16⅛ in. wide, over 30 in. deep, and 34 in. high. It has a 14- by 14-in. fat container with a capacity of 45 lbs.

All Frialators feature the "area burner," a new advancement in deep fat frying. It reduces fat costs and completely eliminates waiting for heat recovery.

Pitman Fryer.

Revised "Organic Chemistry" Covers Hydrocarbons

The third edition of the "Textbook of Organic Chemistry," by E. Wertheim, Ph.D., Professor of Organic Chemistry, University of Arkansas, has just been published by the Blakiston Co., Philadelphia.

New material, references, etc., have been added to the text to bring it up to date. Many processes are discussed, including the Fischer-Tropsch process, and the methane series of hydrocarbons. It contains 105 illustrations and 958 pages.

The textbook is available from the Blakiston Co., 1012 Walnut St., Philadelphia 5. Price: $5.

Let's keep up the GOOD SELLING

...IT'S ALL PART OF AMERICA

America's great strength lies just as much in her selling power as it does in production power. Let's look at your part and ours.

If it weren't for selling power like *yours*, there would be no reason for making ranges like *ours*. It's your sales and our sales that help keep production high—and America strong.

Emergency or not, Tappan believes this structure must stand. And in such faith it continues its program of advertising and dealer support *undiminished*, though actual merchandise may be in short supply.

Tappan quality and the Tappan name were built that way. We shall continue to supply the strongest selling aids we can devise. We urge you to use them fully.

Your guide to the best in modern automatic cookery

THE TAPPAN STOVE COMPANY • Mansfield, Ohio

For 70 years the makers of fine ranges

See us at the L.P.G.A. Convention, Chicago, Hotel Stevens, May 7-10

Servicing Thermostats in the Field

By M. B. GAULT
Field Representative, Robertshaw Thermostat Division, Robertshaw-Fulton Controls Co., Youngwood, Pa.

In Four Parts. Part 3 — Ranges

Detailed Instructions — General Rules

SERVICING domestic range controls in the field is an easy operation because of their simplicity. Actually, there are only a few things that may cause trouble. We will cover these various field problems and recommend a service routine.

As in water heaters, there are some general rules about thermostats which apply when installing a domestic range.

1. Use clean piping in making the connection to the manifold of the range. Dirt left in the piping will eventually find its way to the thermostat and prevent the valve disc from closing. An overheated oven and a service call-back is the result.

2. Install a hand shutoff valve in connecting the piping to the range manifold. It's good practice from the standpoint of convenience and safety.

3. Do not use compression fittings in making your connections. It may become necessary to disconnect the range in the future, and compression fittings are not always tight on the second draw-up.

4. Check the system for leaks with a manometer.

There are certain adjustments which must be made at the time of installation on an oven range control. The following information applies to those ranges which are manually lighted. On a later page will be found some general notes on those ranges which are equipped with various types of auxiliary automatic controls. However, this information is applicable to the thermostat, regardless of other con-

This series of articles on servicing thermostats in the field by Mr. Gault is of tremendous value to liquefied petroleum gas dealers for they enable servicemen to analyze trouble and make repairs on the job. All four parts of this series should be retained for future reference.

Part 1, appearing in our March issue, discussed the different types of thermostats and how they operate; Part 2 in the April issue was on water heaters; range thermostats are discussed this month, and the series will close in June with an article upon the problems encountered in industrial operations.

trols which may be used in conjunction with the thermostat.

For purposes of illustration, we will refer you to the Robertshaw Model BJ, (Fig. 17) which is widely used on gas ranges and has been in service for 15 years.

1. Place thermometer (which should be checked for accuracy at regular intervals) in center of oven.

2. Push in temperature dial and turn to 300°. Light oven burner.

3. Wait 5 minutes. During this period, the precautionary, or yellow flame, pilot should be adjusted. This yellow flame pilot is supplied with gas from the inlet side of the thermostat and is extinguished when the temperature dial is turned to the "OFF" position. Grasp bezel (17), which surrounds dial (3), and remove it, the dial and spring from the control. Turn Pilot Key (9), right or left, until a flame approximately ¾" long is obtained. Check the position of the pilot tip. If it extends into the main burner flame, the tip will burn off. The yellow flame should not impinge on any part of the main burner flame. Sooting and clogged burner parts result from poor location of the pilot tip.

4. After adjusting the pilot flame, and when the 5-minute waiting period has elapsed, turn the temperature dial (3) back (counter-clockwise) to a point midway between the "GAS ON" mark and the next graduation to the left of it (shown by "x"). This procedure makes certain that the main valve disc is closed and that the by-pass flame can now be adjusted.

5. Turn By-Pass Key (29), either right or left, until a flame approximately ⅛" high appears on the main burner. This ⅛" flame is the minimum flame and remains constant, even though the main valve disc is closed. It is very important! It must be adjusted properly! If it is too low, an unsafe condition may result. If it is too high, low oven temperatures cannot be controlled. After making the adjustment, open and close the broiler door quickly. The minimum flame should not go out. Replace bezel (17), spring and dial (3).

6. Now turn the temperature dial to 300°. Wait until a constant oven temperature is reached. If this temperature is considerably above 300°, it would indicate that the minimum flame is too high.

7. Next turn the temperature dial to 400°. Wait until a constant temperature is reached. This temperature should be within 10° or 15° of 400°, although a 25° variation will not be noticed in baking results. (If too great a variation is noticed, you should recalibrate the control).

8. When all adjustments have been made and you are certain the range is performing satisfactorily, call the housewife and go over the range with her, feature by feature. Be sure she understands perfectly how to

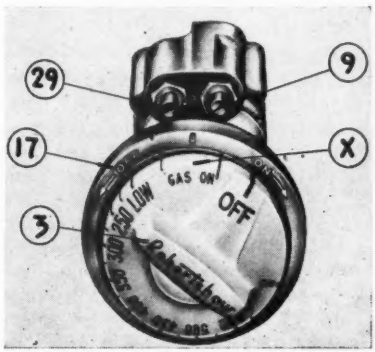


Fig. 17.

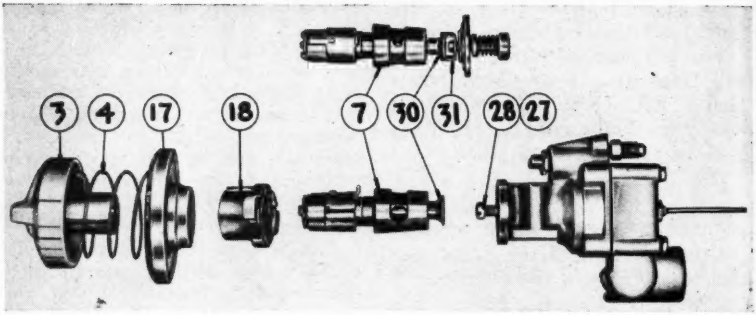


Fig. 18.

operate her new range. Following this procedure materially reduces service call-backs.

A domestic range control may be subjected to sustained periods of high ambient temperatures. That is, because of intensive top burner use, the zone surrounding the body of the control may exceed the normal expected temperature. After a period of years, the temperature dial may become difficult to turn. This means that the grease on the gascock plug must be renewed.

First, shut off gas in the supply line and turn the temperature dial (3) in Fig. 18 to the "OFF" position. Next, grasp bezel (17) and pull it with spring (4) and dial (3) from shank of gascock plug (7). Loosen screws (27 and 28) about 4 complete turns, but do not remove. Then guide (18) may be rotated counter-clockwise and removed. Grasp shank of gascock plug (7) and pull out of body, without turning right or left. Clean gascock plug and cavity in body with a solvent, such as carbon tetrachloride. In applying the grease (and it should be of a type acceptable for use on your particular gas), spread it *thinly* over the tapered surface of the gascock plug. Too much grease will clog the ports and restrict the flow of gas through the control.

Before reassembling the gascock plug, notice the brass, bell-shaped piece (30) that extends through the end of the gascock plug. Notice too, the two slots of unequal size in this piece. Now look into the cavity of the body. There you will see two brass arms (31) of unequal size, near the bottom of the cavity. These two arms slide into the two slots and, being of unequal size, the arms and slots must be matched. The inset (Fig. 18) shows how these two parts mate when assembled.

Line up the slots with the arms (the wide arm with the wide slot), and carefully insert the gascock plug into the body. A slight twisting motion as the plug is inserted

will allow it to drop into place easily. If this procedure is not followed, and the plug jammed into place, the arms will be bent with the possibility that the plug will not seat in the body perfectly. This will result in gas leakage with a resulting hazard.

You may now reassemble the remaining parts in reverse order. Be sure the temperature dial does not bind. If it does, loosen screws (27 and 28) and realign guide (18) to eliminate the binding.

Calibration is an operation which the man in the field is called upon to perform more often than any other. It is simply a matter of making the temperature dial setting agree with the temperature in the oven. Since 400° is in the middle of the baking range (300°-500°), it is best to perform the calibration at this temperature. First, place your oven thermometer in the center of the oven and then light oven burner with temperature dial (3), pictured in Fig. 19, turned to 400°. Wait approximately 10 minutes and take a reading. The oven door should be open for as short a time as possible. A flashlight is helpful in reading the thermometer. Wait five minutes and take second reading. Continue to take readings at five-minute intervals until two consecutive readings agree with each other within five degrees. This indicates the oven has reached a stable temperature. The final reading should agree with temperature dial setting (400°) within 10°. If the variation is more than 10°, you may wish to recalibrate, as follows:

As previously described, pull off dial, spring and bezel without

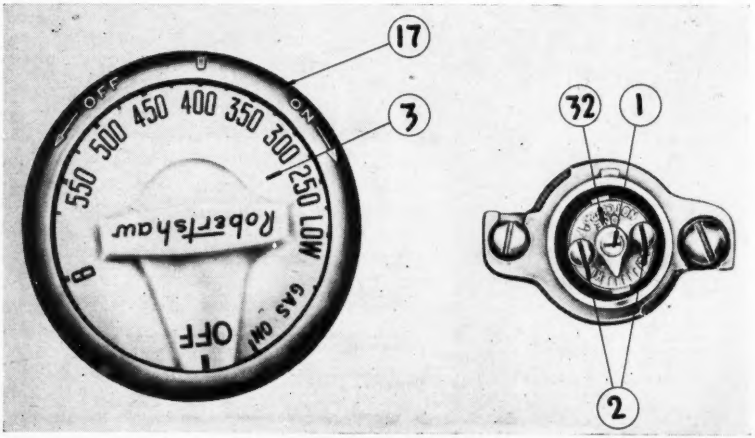


Fig. 19.

Modern Maid
GAS RANGES

MODEL BG-9300 PAC

Deluxe features brought to the popular price field. Equipped with automatic oven ignition, clock controlled oven, top lamp and clock, glass oven door and oven light.

The Range that Sells Itself!

Prospects sell themselves on the beautiful new **Modern Maid** line of domestic cooking ranges . . . **Modern Maids** are the answer to your dreams of a fast-moving, high-prestige product . . . they answer your customer's dreams of a long-service, up-to-the-minute cooking appliance.

Designed especially for use with LP-Gas, the **Modern Maids** combine rugged, long-life construction with sleek modern design. Each oven is porcelained inside and out, insulated heavily with Fiberglas. Each burner has an individual drip pan, and manifold covers are recessed for cooler gas cock handles.

There is a Representative or Factory Warehouse in Your Vicinity

WRITE US FOR DETAILS

Come in and see the Modern Maid Line

Booth 148

L P G A CONVENTION

Stevens Hotel, Chicago

Tennessee Stove Works

Three Generations of Stove Building

CHATTANOOGA 1, TENNESSEE

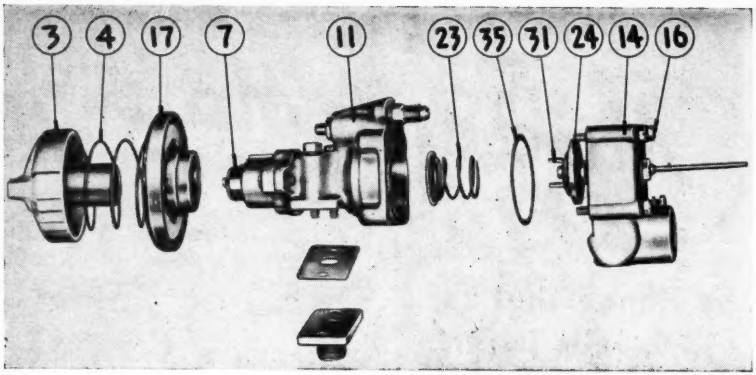


Fig. 20.

turning dial from its 400° position. Loosen (but do not remove) the two screws (2) in calibration plate (32). Notice that the calibration plate (32) is notched at the outside edge. Each of the notches is the approximate equivalent of 25°. Therefore, if the oven temperature is 50° out of calibration, the adjusting screw (1) should be turned 2 notches in the proper direction. To further illustrate, if the oven temperature is 450°, then the adjusting screw should be turned two notches, counter-clockwise. The two screws (2) are retightened and the other parts replaced. Recheck calibration as before and, if still not correct, the above procedure should be repeated.

Finally, the oven temperature should be checked at a lower temperature to determine if the diastat is satisfactory. A small leak in the diastat will permit temporary control at one point (where calibrated), but it will be out of calibration at another check-point. Therefore, turn the temperature dial to 300° and check the oven temperature at this lower setting.

The most common complaint involving the domestic range control is that the oven over-heats. Naturally, you will first attempt to adjust the minimum flame on a complaint of this kind. If it is not possible to reduce the main burner flame to the proper minimum, the next step is to check calibration (described previously). If the main burner flame still does not reduce to its minimum, it would indicate that dirt had lodged on the valve seat or valve disc. To clean, proceed as follows:

Shut off gas in supply line and disconnect piping from outlet of control. Then remove the four screws (16) pictured in Fig. 20. It is now possible to separate the diastat housing (14) from the body (11). The valve disc (24) is

exposed and the disc spring (23) may be removed from the body. It is good practice to clean the valve seat and disc with a solvent and then wipe clean with a clean, lint-free cloth. NOTE: If the valve disc is not turned during the cleaning operation, calibration is not affected. Also, before reassembling the parts, the gascock plug should be removed, as described previously. This actually makes the reassembly much easier and eliminates the chance of distorting the brass arms (31).

The fourth major cause of an over-heated oven is that the hydraulic element is defective. It is possible to check the hydraulic element at any time you are able to reduce the main burner flame to its minimum. This is done by rotating the temperature dial, clockwise, to a slightly higher setting. This will increase the size of the main burner flame. If the hydraulic element is not defective, the main burner flame will reduce in size, automatically, in a few minutes' time.

The modern gas range is equipped with various types of controls which serve to make the operation of the range automatic. The systems are used in conjunction with the oven temperature control.

There are three types of automatic systems in use:

1. Automatic shutoff with constant burning pilot.

2. Single point ignition with automatic shutoff.

3. Electric ignition with automatic shutoff.

Clock control can be used with any of these systems. We do not propose to discuss Type 2 or 3 because of space limitations, but refer you to manufacturer's instructions on their use and servicing. However, since most "CP" ranges are equipped with Type 1, we are including some information on this particular system.

A range having the automatic shutoff feature means that the gas to both main burner and pilot burner is shut off in the event of pilot failure—if the shutoff system is 100%. The 100% automatic shutoff is mandatory on those "CP" ranges which are used on liquefied petroleum gas.

Fig. 21 pictures a system which is typical of Type 1—automatic shutoff with constant burning pilot. In order to place this system

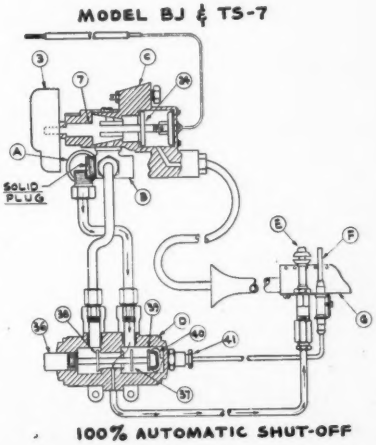


Fig. 21.

in operation, the red button (36) is depressed. The depressing of this button raises shutoff valve disc (37) from the seat which permits gas to flow from manifold (A) to pilot burner (E) where it is lighted.

Notice the fitting (B) on which the Model BJ (C) is mounted. The fitting is turned into the manifold, since it is solid at this point.

Safe With Open Thermostat

The depressing of the red button (36) also closes interrupter valve disc (38) which means that no gas may pass to the main burner (G) during the lighting operation. This, in turn, means safe lighting, even though the thermostat is open. The depressing of the red button accomplishes one other thing. The armature (39) is pushed against the pole faces of the horse shoe magnet (40).

After the pilot has been lighted and is burning, the red button is held in its depressed position for an additional 30 seconds. When the red button is released, a spring pushes it back to its original position and also lifts interrupter valve disc (38) from its seat. During this 30-second period, the pilot flame, impinging on the thermocouple tip, has created enough electrical energy to enable the magnet (40) to hold the armature (39) to itself and keep the shutoff valve disc (37) open.

Gas now can flow, not only to the pilot burner, but to the thermostat (C) as well. With the turning of temperature dial (3), the gascock (7) is opened and the main valve disc (24) is raised from the seat. Gas can now move on to the main burner (G) where it is ignited by the constant burning pilot.

In the event of pilot failure, the magnet releases the armature (39) and allows the shutoff disc (37) to close. The gas is trapped at this point and none can flow to either the main burner or the pilot burner. Thus, we have 100% automatic shutoff.

Servicing and adjusting the thermostat is as we have described previously. Dismantling the TS-7 (automatic shutoff control) is not recommended. If you are certain this unit is defective, REPLACE IT. There are several basic points to be remembered when servicing the pilot burner and thermocouple:

Points to be Remembered

1. The pilot flame should be soft and blue and impinge **directly** on the last ⅜" to ½" of the thermocouple tip.

2. If the pilot flame is yellow and cannot be made to burn blue by adjusting the primary air shutter (if so equipped), clean the primary air openings and the orifice.

3. It may be necessary (if the magnet will not hold) to clean the tip of the thermacouple lead wire. Remove nut (41), pull out tip and clean. In retightening, **do not force**

All drawings by Robertshaw-Fulton Controls Co., Youngwood, Pa.

the nut (41). A quarter- to half-turn past the finger tight point is sufficient.

4. An electrical test kit which combines both a milli-volt meter (for testing the thermocouple) and a milli-amp meter (for testing the magnet) is a big timesaver in analyzing and finding trouble.

We have covered the major problems which arise in servicing controls as generally found on domestic ranges. For more detailed and specific information, we suggest that you write the manufacturer. The manufacturer of the control, and the appliance, is ready and willing — even anxious — to help with your field problems.

•

Part 4 will discuss industrial controls.

Dealers and Utilities Join Hands To Publicize Gas at Builders' Show

CENTRAL Pennsylvania gas utilities joined forces with LP-Gas dealers and distributors to present the first joint cooking school to be held in that area, at Harrisburg, Pa., March 5-10.

Held in conjunction with the Central Pennsylvania Builders' Show, the cooking classes, appliance demonstrations and display booths drew well over half a million people.

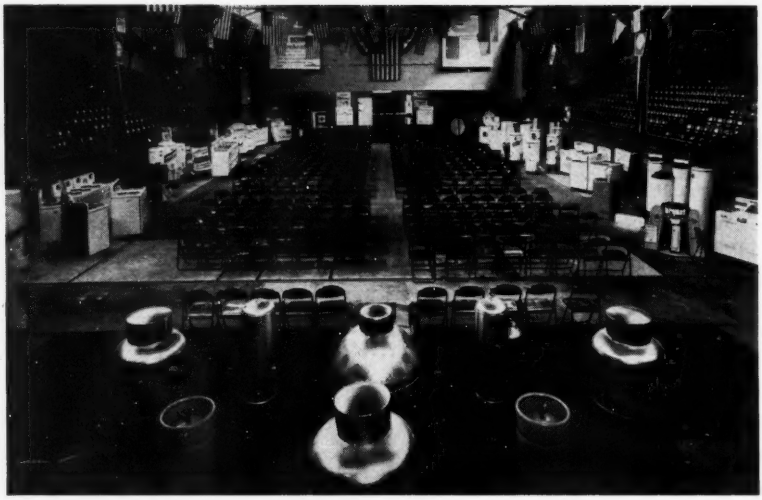
A. C. Horner, Inc., a large, bottled gas concern located near Harrisburg, was awarded first prize in the appliance division. A bronze plaque was accorded the win on the merits of a display which emphasized the wide variety of services performed by bottled gas.

The cooking show theme, "Gas is Everywhere," stressed availability of natural gas and LP-Gas for quick, safe, clean, economical and efficient service in every locality. Noted home economists prepared meals at each of the sessions and manufacturers demonstrated the latest model appliances.

Approximately $3000 worth of automatic appliances and quality foods were given away at the event. Two major appliances were awarded each day and at the close of the program the grand prizes—Servel refrigerator, Caloric range and Ruud water heater —were given show-goers and these were installed on winners' premises without charge.

A. C. Horner addressing attendants at the Central Pennsylvania Builders' Show at Harrisburg in March.

Manufacturers presenting demon-



The scene of the Harrisburg, Pa., gas cooking school which drew enormous crowds to the Central Pennsylvania Builders' Show.

strations and informative talks on their products include Tappan Stove Co., A. O. Smith Corp., Servel, Inc., Caloric Stove Corp., Bendix Home Appliances, Inc., Cribben & Sexton Co., Ruud Manufacturing Co., Geo. D. Roper Corp., John Wood Co., Norge Div. of Borg-Warner Corp., and the Philadelphia Gas Works, according to A. C. Horner, who was co-chairman of the LP-Gas promotion committee.

The United Gas Improvement Co. and a total of 14 bottled gas dealers, eight bottled gas distributors, two LP-Gas suppliers, 14 product suppliers, and UGI utility men cooperated to make the show a huge success.

Sponsors and officials pointed to the fact that the first united effort of the LP-Gas and city utility industries in that area had been responsible for the tremendous attendance at both cooking schools and appliance exhibits.

Plans are currently being prepared for the joint presentation of another show at the first opportunity. In the words of sponsors, "Inter-industrial cooperation has paid off."

"Lessons From Fire Losses" Available From NFPA

Large-loss fires ($250,000 or more damage) increased 12% in 1950 over the previous year in the United States and Canada and caused 26% more damage, the National Fire Protection Assn., non-profit fire control group, reports.

The findings of the NFPA have been compiled in a 64-page illustrated booklet, "Large Loss Fires of 1950 and Their Lessons" which is available from that organization at 60 Batterymarch St., Boston, for one dollar a copy.

BUTANE-PROPANE POWER SECTION

Installations CARBURETION Conversion

This Fort Wayne (Ind.) Transit, Inc., bulk plant supplies 5 propane Twin Coach buses. The entire fleet of 30 buses will be converted.

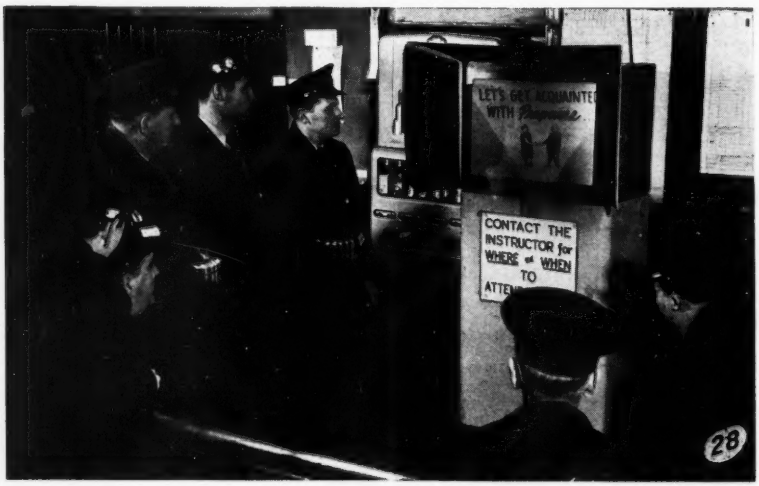
Bus Drivers Go to School

By Carole D. Lindgren

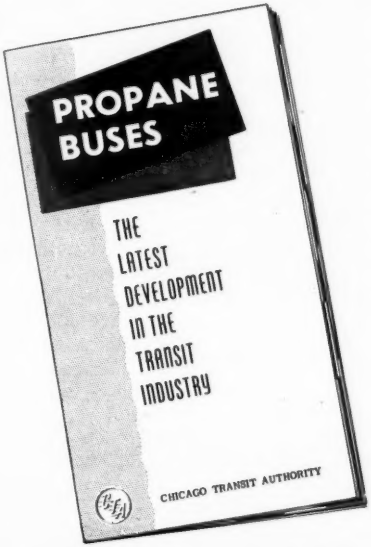
IN the North Park bus terminal on Chicago's Northwest Side, eight men in drivers' uniforms attentively watch a movie-slide screen. The subtitle shown there says, "Let's Get Acquainted With Propane!"

That is the purpose of the training course instituted by the Chicago Transit Authority a few months ago—to acquaint their bus drivers with every detail of propane and of the recently purchased propane-fueled buses. Already 750 drivers at stations in three different sections of the city have completed the course. Ultimately, approximately 2000 men who will handle the new buses will be given training, at the rate of about 100 each week.

"Probably we could have done without any special training," says Charles Keiser, executive assistant in charge of personnel. "Of course, any experienced driver can get into a propane bus and drive away and, to all appearances, it is no different than driving any other bus. But there really are differences,



Showing of 30 colored sound-slides introduces Chicago's bus drivers to the history and development of propane.



Cover of bus driver instruction booklet issued by Chicago Transit Authority.

and to get the longest life from the machine, as well as the fullest benefit of the advantages of propane, we thought it best to give instruction to all of our employes who will handle the new buses."

With the delivery in Chicago on Dec. 18 of the first dozen of the 500 vehicles on order, plans for the drivers' training were put in action. Under the direction of G. Wagner, supervisor of the training department, a booklet had been prepared and printed which gives the history of the development of LP-Gas and explaining the manner in which the fuel is converted in the motor. Explicit directions for use of the various valves and switches are also included. The short course of instruction and demonstration augments these booklets, which are distributed to all drivers.

Thirty color slides, supplied by the Twin Coach Co., manufacturers of the buses, are shown to the men, illustrating the origin, manufacture and use of propane. These slides show how LP-Gas changes from liquid to vapor and stress safety measures in handling the buses. Then, in groups of not over eight, the drivers are taken over one of the new buses by an instructor.

Small Classes, Better Results

"We restrict classes to a maximum of eight men," explained J. R. Blaa, training assistant of the C. T. A., "because a larger group defeats our purpose of desiring every man to see clearly everything pointed out by the instructor. The men are shown the construction of the fuel system and are given a thorough briefing on the locations and uses of all switches, valves and gauges. They are also instructed on the handling of the fire extinguishers, which are somewhat different from those which they are accustomed to."

Frequently drivers ask about starting the new buses. Of course, the mechanics of this and other operations are fully explained. They are also warned that the ease with which the propane motor starts in cold weather is deceptive and that the motor should be allowed to warm up in spite of this.

"How is pickup?" This is an

Instructor M. Cooper giving driver part of his training on propane bus.

important matter to drivers in maintaining their schedules. They are told that the carburetor can be adjusted so that the acceleration rate is standard, and it is emphasized that propane is more powerful because it is more efficient.

Naturally, questions are asked concerning the possibility of fire; drivers are assured of the buses' safety in this regard.

"A propane-fueled bus is no more dangerous than a gasoline bus, if you are equally careful with it," says Mr. Blaa. "Even if there were an accident, it seems to me the propane bus is less dangerous, for such extra precautions have been taken to insure its safety. The fuel tank is built of heavy steel and to strict specifications and therefore far less subject to rupture than gasoline tanks."

A maintenance course is also being given for mechanics and other employes who care for the buses. In addition to the booklet and slide pictures, these classes use a model engine to demonstrate factors in learning the care of the engines. They are especially instructed in the transportation, storage and transfer of the fuel.

Several Chicago bus lines have already been equipped with the propane buses, and other will be changed over as fast as the new units are received. In the future the C.T.A. plans to have all employes stationed at the depots from which the new buses operate, as well as the drivers, receive instruction which will thoroughly acquaint them with the use and advantages of propane-fueled buses.

Omaha and Council Bluffs Will Have Propane Buses

Omaha and Council Bluffs Street Railway Co. is currently putting 85 propane-fueled buses into operation in the Omaha, Neb., area. The fleet will include 25 new Twin Coach, propane-burning vehicles and 60 converted buses.

The company has recently been installing six large propane storage tanks. Each has a capacity of 30,000 gallons, is nine feet in diameter, approximately 60 feet long and weighs 40 tons.

Manufactured in Chicago, the tanks required two railroad flat cars each for transport and a special trucking rig for final delivery to the site of installation. One tank was installed in a combination car barn and dispensing station, another was buried at another bus barn and four more were scheduled for a bulk storage yard near railroad facilities.

LP-Gas Filling Station Directory

ARKANSAS

El Dorado
Butane Carburetion & Supply
1414 E. Hillsboro

COLORADO

Loveland
Public Gas & Equipment Co.
S. Lincoln Ave.
Phone: 0384-J2 for 24-hr. service

ILLINOIS

Mt. Carmel
Liberty Propane Gas
927 N. Market St.
Open 24 hrs.
Day phone: 245
Night phone: 1057 or 447R

OHIO

Springfield
Rural Natural Gas Co.
3422 W. Main St.
US Hwy. 40, 1 mi. W of city

OKLAHOMA

Oklahoma City
Home Modern Gas Co.
6000 E. Reno
Open 24 hrs.

Ada
Parker Fuel Co. Inc.
207 E. Main St.
Conversions; service
Open 10 hrs.

Blackwell
Kay Gas Co.
1909 S. Main St.
Conversions
Open 10 hrs.

Denver-Boulder Buses Convert to Propane

Another major bus line has converted to LP-Gas—and in the process has done an excellent job of informing the public of the fuel's advantages.

Denver-Boulder Bus Co.'s president, I. B. James, pointed out reasons for the conversion program at a press interview. He estimated that the company would save 1¼ cents per mile, which permits the line to operate at a saving of $450 per month below the cost of gasoline.

It was also noted that length of engine life was increased 50% because of the carbon-free combustion characteristics of the fuel. Special piston installation and cylinder head modifications were explained as the means of obtaining maximum power and performance from propane's relatively high octane rating. Also noted was the use of converters and special carburetors.

Denver-Boulder Bus Co. obtains its fuel from the Phillips Petroleum Co. Denver bulk plant which, in turn, is fed by pipeline from Borger, Texas.

According to Mr. James, his company is the first to put an LP-Gas fuel bus into operation in Colorado. Subsequent conversion has been made at the rate of two buses per month.

Western Service School Will Feature Carburetion

LP-Gas carburetion has been added to the subjects to be covered at the Western LP-Gas service school scheduled for Aug. 29-31 at the University of California in Berkeley.

Last year's attendance at the school numbered 135 and plans are being made this year for 200 or more.

Current News From Washington

By Larston D. Farrar
Special Correspondent

INSTO-GAS Corp., Detroit, has filed an answer with the Federal Trade Commission denying charges of monopolistic use of exclusive-dealing and tying contracts in the sale or lease of propane gas cylinders, in violation of Section 3 of the Clayton Antitrust Act. (BUTANE-PROPANE *News*, April, P. 90.)

The answer admits that Insto-Gas leases its cylinders on the condition, agreement or understanding, that the lessees shall purchase from it or its authorized distributors all the gas used in the operation of the cylinders and use with them only Insto-Gas appliances purchased from it or from authorized distributors. It denies, however, that these conditions apply to the sale of cylinders or appliances.

Denying that any competitor sells or leases "exactly similar cylinders," the answer also disputes the allegation that the corporation's practices have hindered, lessened, or suppressed competition.

Safety Factor Concerned

The answer contends that "the agreements made by respondent with its distributors and with the lessees of its cylinders relating to the refilling of such cylinders are calculated and reasonably necessary to permit the respondent to keep its cylinders in safe condition and repair; to avoid violations of State laws and safety regulations prohibiting the unauthorized refilling of cylinders; to avoid violations of the Interstate Commerce Commission's regulations prohibiting the transportation of improperly refilled cylinders; to protect the respondent's good will and the reputation and standing attached to its trade-mark; to avoid violations of Federal and State trade-mark acts; and to prevent unfair competition contrary to Federal and State statutes and to the common law.

As to agreements between Insto-Gas and its lessees with reference to the attachment of Insto-Gas cylinders to Insto-Gas tools and appliances, the answer contends these are "reasonably calculated to insure . . . the successful and safe use of Insto-Gas cylinders." It adds that Underwriters Laboratories, Inc., has approved Insto-Gas equipment "for use as a system consisting of the respondent's Insto-Gas cylinder when filled or refilled by respondent or under respondent's direction, and connected to a torch, furnace, or tool sold by respondent, by a hose or connecting device sold by respondent." Underwriters Laboratories, Inc., "has refused its approval for respondent's torches, furnaces or tools unless so connected and used," according to the answer.

Insto-Gas deposes further that it has not "limited the right of its lessees to use or deal in the goods of the respondent's competitors," but that they are "free to buy or to lease as many other cylinders of LP-Gas and as many torches, furnaces, tools and appliances as they please, and to use them or deal with them as they may be advised."

Another allegation denied by the answer is that Insto-Gas is "among the largest owners, lessors or vendors of cylinders for the containing of

compressed gas." The corporation says the quantity of liquefied petroleum gas it sold in 1949 and 1950 was about .000218 of the total volume sold in the United States.

After an examiner's decision, either the FTC or the corporation will have the right to appeal to the full Federal Trade Commission for full hearing of the case.

LPGA Washington Bulletin

One new provision of the organization chart of PAD proposes a specific category for the LP-Gas industry with a competent administrator.

•

A 20% cutback in steel went into effect in March for the second quarter and is based upon average consumption for the first half of 1950. It affects all appliances and many other items.

•

Approximately 100 propane cars now leased to the industry by the army are due to be called in and leased to Rubber Reserve for butadiene transportation for several months.

•

The Interstate Commerce Commission has approved interim freight rate increases of 4% in the East and 2% in other areas, effective April 1.

New Mexico Dealers Defeat Unfriendly Legislation

The New Mexico Liquefied Petroleum Gas Assn. was on the job to protect its interests at final sessions of the state legislature at Santa Fe in March. Members from Raton, Las Vegas, Roswell, Clovis, Taos, Albuquerque, Espanola and Santa Fe "practically pitched their tents in the capitol" according to their attorney, George W. Hannett.

Therefore, they have themselves and their organization to thank, Mr. Hannett thinks, that the following proposed legislation did not become law:

A bill to transfer LP-Gas dealers from authority of the Public Service Commission to the State Corporation Commission.

A bill to increase LP-Gas dealers' license from $50 to $150.

A bill which, through mis-wording, would have made every LP-Gas concern in the state a public utility.

The New Mexico association sponsored a series of meetings in the six districts of the state in April to hear Ed Podjorski, of the U. S. Bureau of Mines, speak on the "Magic of Fire."

Water Heaters Removed From M-47

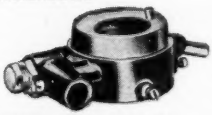
The National Production Authority has issued an amendment to M-47 which removes water heaters from under the limitations of the previous List A.

In releasing the amendment, the NPA states that the action was to assure the continued production of consumer durable goods in proportionate amounts for the civilian economy. Much credit for this exemption goes to the Industry Task Committee of GAMA's water heater division.

Sources for Pamphlet No. 58

Copies of Pamphlet No. 58 may be had, free of charge, from any of the following offices of the National Board of Fire Underwriters: 85 John St., New York City; 222 West Adams St., Chicago; Merchants Exchange Bldg., San Francisco.

MODEL "UT-2" VAPORIZER AND REGULATOR
Combines two stages of regulation . . . primary and secondary, with vaporizer interposed. Compact in design for ease of installation.



MODEL "M" ADAPTOR CARBURETOR
Designed to fit in air cleaner to carburetor air pipe, by means of hose and clamps. Permits use of factory equipped gasoline carburetor and governor hook-up.

"Profit-Wise" L.P.G. DEALERS LOOK TO ROADMASTER

Feature for feature . . . Roadmaster is the "number one" performer in the L.P. Gas Carburetion Field. Proven performance and customer satisfaction are the results of 15 years of experience and skill in the development and manufacture of L.P. Gas Carburetion Products. Sell the best . . . Sell Roadmaster.

"Profit-Wise" dealers all over the country are taking advantage of Roadmaster's quality and performance features to set amazing sales records.

Write Today . . .
For Roadmaster's "Sales and Profit" Story

Roadmaster PRODUCTS COMPANY

3350 San Fernando Road
Los Angeles 65, California

Roadmaster Products Are All Ways Dependable

First Meeting for Southeast District

By Paul Lady

THE 1951 LPGA Southeastern District convention and trade show held in Atlanta, March 19-21, proved the association's integration program has gained wide acceptance among LP-Gas dealers in the South.

The five-state meeting, which included Georgia, Alabama, Florida, and North and South Carolina, brought together more than 500 industrymen. Forty states were represented at the meeting, indicating a widespread interest in the growth of the LP-Gas industry in the southern area.

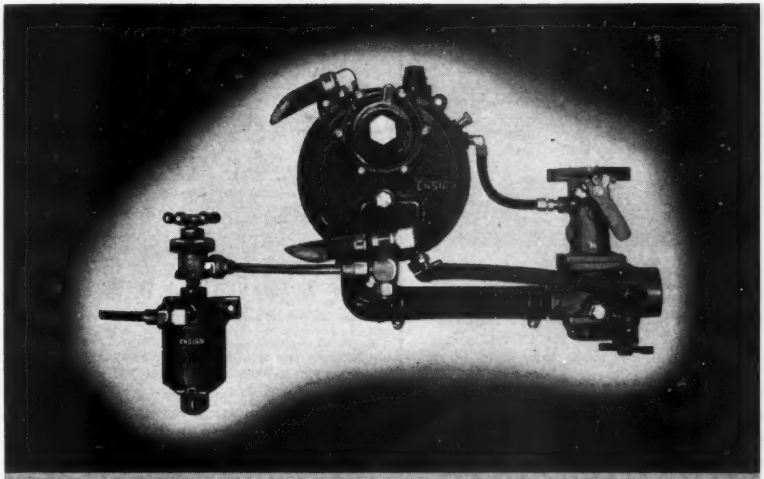
New officers were elected for four of the five state associations at separate meetings held during afternoon sessions. Those elected include:

Georgia: President, Kingsley Weatherly, DeKalb Gas Co., Stone Mountain; vice president, Lou Hill, Reliance Gas Corp., Columbus; secretary-treasurer, Sidney Stapleton, Georgia Automatic Gas Co., Atlanta; new director, Ken W. Mattox, Propane Gas Service, La Grange.

Alabama: President, Jim Chancey, Druid Butane Gas Co., Tuscaloosa; vice president,

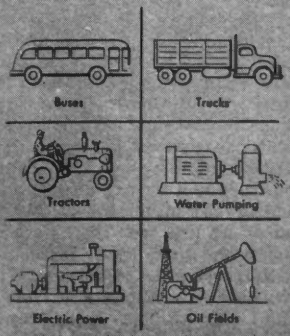
TOM FIELDS

CHESTER BLOME



ENSIGN

the most wanted LP-gas carburetor in America today



Here are the outstanding reasons: — (1) With ENSIGN Carburetion the engine starts easily. (2) Engine runs well and economically. (3) The carburetor stays in adjustment. (4) ENSIGN equipment is built well to rigid standards and lasts for years. (5) It is easy to service. (6) When it needs repair, parts are readily available for even very old models. (7) It costs little or no more. (8) It is the popular choice throughout the world.

All of this because, in the first place, the equipment was designed by carburetor engineers. Insist on ENSIGN — nothing less.

ENSIGN

CARBURETOR COMPANY

7010 S. ALAMEDA ST., P. O. BOX 229
HUNTINGTON PARK, CALIFORNIA

Branch Factory: 2330 W. 58th St., Chicago 36, Ill.

JAS. L. CHANEY

M. L. BAILEY

William Gordy, Capitol Liquid Gas Co., Montgomery; secretary-treasurer, George Allen Smith, Coosa Gas & Appliance Co., Gadsden.

North Carolina: President, M. L. Bailey, Gem Automatic Gas Co., Granite Quarry; vice president, H. M. Dickens, Whiteville Gas Co., Whiteville; secretary-treasurer, William C. Garner, Garner Gas & Equipment Co., Farmville; director, District 1, R. S. Steele, Steele Rulane Gas Service, Hickory; director, District 3, Clyde Collier, Collier Gas & Appliance Co., Whiteville.

South Carolina: President, E. K. Butler, Dualane Gas Co., Columbia; vice president, Henry A. Cauthen, South Gas Co., Lancaster.

Elections for new state officers for Florida were to be held at the meeting scheduled for the Florida LP-Gas Assn., April 19-21, at Hollywood, Fla.

The three-day meeting at Atlanta featured a rounded program of technical discussions, business meetings, and social events. An added attraction at the show was the exhibit of LP-Gas appliances and equipment. Eighteen local and national organizations displayed their wares. Every exhibitor expressed pleasure at the continued interest shown by LP-Gasmen throughout the exhibition periods.

One of the highlights on the program at Atlanta was the outstanding presentation given by C. E. Blome on the "Importance of Venting." Widely known for his illustrated talk on venting, Mr. Blome again brought home to those present a valuable

E. K. BUTLER, JR.

K. WEATHERLY

message on this important subject. All he had to say was eagerly accepted by an interested audience.

Mr. Blome's five basic rules for good venting include:

1. Keep the flue gases hot.
2. Follow the vent manufacturer's installation instructions.
3. Select the proper vent size.
4. Provide constant fresh air replacement.
5. Install a draft diverter.

An informative illustrated booklet covering these five points in detail may be obtained by writing Mr. Blome's company, William Wallace Co., Belmont, Calif.

Harold E. Jalass, vice president of Cribben & Sexton Co., gave new life and glamour to the subject of selling LP-Gas and the appliances that use this fuel. Long an authority on sales and promotion, Mr. Jalass urged industry members to believe in their industry—to train new salesmen all the time—and to go out and sell gas against their ever-growing competitor, electricity.

Lee Brand, chairman of the National Committee for LP-Gas Promotion, spoke on a subject he intimately knows because of his untiring efforts to put across the promotion program. Mr. Brand told attendants that the program was no longer a dream—but

a full-fledged program in full swing.

The final talk of the meeting was by Paul Welch, vice president of Citizens & Southern National Bank, Atlanta. Mr. Welch discussed the subject of getting credit for expansion for the sale of systems and appliances to customers. He pointed out that his organization has already loaned this industry over $2,000,000. They have faith in it and want to be a part of it. But, he warned, if LP-Gas dealers are to obtain loans from banks they must keep better accounting systems. He urged training in this direction. The keen interest shown by the group in an open discussion following Mr. Welch's talk indicated the desire for more information along this line.

Presiding at the various meetings were the outgoing presidents of several state associations: W. S. Lander, North Carolina; Richard M. Mills, Georgia; G. B. Sheppard, South Carolina; and J. A. Garfield, Florida.

The success of the combined association meeting was due to a large extent to the outstanding direction by the section's new secretary, Tom Fields. He proved his ability to coordinate the activities of five state associations into one of the best meetings LPGA has ever held.

Missouri Dealers Given Selling Tips

By Craig Espy

R. J. VANDAGRIF, sales official of Laclede Gas Light Co., St. Louis, told members of the Missouri LP-Gas Assn. who met in St. Louis, April 4-6, that there is much more to selling and distributing LP-Gas

New officers and directors of the Missouri LP-Gas Assn. (seated, left to right): O. E. Mueller, Crump Taylor, A. W. Scofield (president), Robert W. Hadlick (executive secretary). Back row: W. A. Schuette, Wayne Werges, John Miller, A. C. Turner, W. W. Beckett.

than the mere sale, itself. He pointed out that after the sale comes the service responsibility and public relations.

"You as an individual will grow," he said, "as long as you accept these extra responsibilities." He also urged the delegates against straying from the gas picture, that is, against handling products that do not utilize LP-Gas. He pointed out that some of these appliances are highly competitive and also are short on profit.

A. H. Bauer, Morgan County Gas Co., Versailles, Mo., president of the group, presided over the three-day conference and trade show. Robert W. Hadlick is executive secretary. Approximately 300 registered for the meeting.

Lee A. Brand, chairman of the National Committee for LP-Gas Promotion, reported that 728 companies were now participating in the national advertising program.

New officers and directors elected at the convention include the following:

President—A. W. Scofield, Missouri-Midland Gas Co., Kirksville.

Vice President—Melvin Hall, Tri-State Gas Co., Noel.

Treasurer—O. E. Mueller, Butane Gas & Appliance Co., Webster Groves.

District 1—R. E. Seidel, Chairman, Chillicothe Bottle Gas Co., Chillicothe; A. C. Turner, Turner Service, Chilhowee; W. W. Beckett, Hetro Gas Co., Cameron.

District 2—K. H. Dickson, Chairman, Uregas Service, Inc., Moberly; John Miller, Miller Ruralgas, Vandalia; Wayne Werges, Elsberry Gas & Electric Co., Elsberry.

District 3—Crump Taylor, Chairman, Burtay Gas Co., Appleton City; L. C. Fritts, Economy Gas Co., Springfield.

District 4—E. A. Reutner, Chairman, Community Propane Gas Co., Overland; W. A. Schuette, Hausgas, Inc., Washington.

The Trade

Petroleum Trading & Transport Co., Tulsa, Okla., has announced the appointment of James Vance to its natural gasoline and LP-Gas sales division. Mr. Vance joined the company on April 1 after having been associated with the natural gasoline and LPG sales division of Sinclair Oil & Gas Co. for the past 11 years. A. F. Boudreau, Jr., is president of Petroleum Trading & Transport Co. and D. L. Harlow is director of the natural gasoline and LP-Gas sales division.

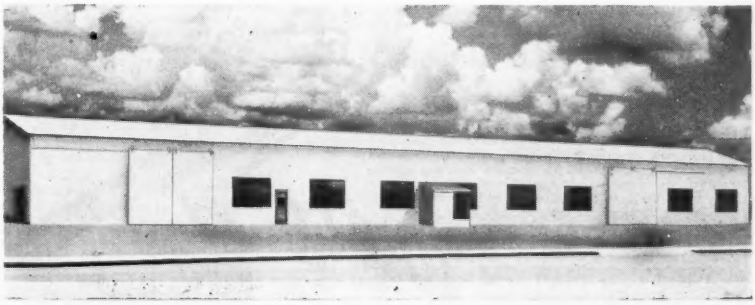
Edwin Heina, for 43 years associated with **Perfection Stove Co.**, died suddenly March 29 at his home in Cleveland Heights, Ohio. He was 74 years old.

In 1908 Mr. Heina came to the Cleveland Metal Products Co., parent company of Perfection, as employment manager. He held various other posts with the company and in 1925 he was elected treasurer. He was a member of Perfection's board of directors.

The Santa Fe Engineering and Equipment Co., of Maywood, Calif., announces the opening of its new Tulsa, Okla., plant. It will cover an area of 1¼ acres with the building itself occupying approximately 25,000 feet.

The plant will feature modern equipment for the mass production of LP-Gas fuel tanks for tractor, bus and truck conversions in addition to manufacturing tanks for several of the major tractor manufacturers for their factory installations.

Santa Fe builds a custom built tank for all standard tractor models that are still in use. Harold D. Robinson,



The Tulsa, Okla., plant of the Santa Fe Engineering & Equipment Co.

owner and president of the company, will reside near the new plant. The company's general offices are at 3810 Fruitland Ave., Maywood, Calif. C. G. Reavis is general manager.

United Petroleum Gas Co., Minneapolis, has announced the appointment of Arthur Delau as manager of its supply and transportation department. He has had many years' experience in the transportation and supply branches of the LP-Gas industry.

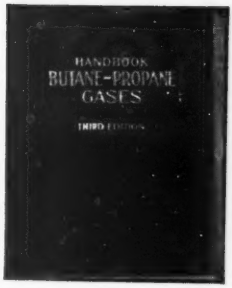
Mr. Delau replaces W. A. Powers, who was recently named assistant director of supply and transportation for the Petroleum Administration for Defense in Washington, D. C.

Norris Stamping & Manufacturing Co., Los Angeles, which last year purchased Compressed Gas Cylinders, Inc., has changed its name to **Norris-Thermador Corp.** K. T. Norris continues as president. W. E. Cranston is first vice president.

R. G. Smith, formerly vice president of Compressed Gas, continues as manager of sales, Cylinder Division; Lee Parker and Rodney Mastick will act as sales representatives covering the West and East, respectively. R. F. Dunston is manager of sales and service.

The change of name does not affect the operation or personnel of the cylinder division which manufactures LP-Gas and other high and low pressure gas cylinders.

HANDBOOK BUTANE-PROPANE GASES



- **Up-to-date technical facts on LP-Gases.**
- **352 Pages. Illustrated with Charts. Diagrams and Photographs.**

Check this partial list of contents.

INTRODUCTION
- The Progress of the Industry and the History of its Development.
- The ABC of LP-Gas, an Introduction to LP-Gas Operations.

PHYSICAL AND CHEMICAL PROPERTIES
- Properties of the Hydrocarbons in LP-Gas.
- Properties of Butane-Propane Mixtures
- Volume Correction Factors
- Analytical Determination and Testing

PRODUCTION OF LP-GAS
- Natural Gasoline Plants, Recycling Plants, Oil Refineries

TRANSPORTATION AND STORAGE
- Delivery by Truck, Rail, Water, and Pipe Lines
- Storage Tank & Pressure Vessel Design
- Liquid Metering and Pumping Systems

UTILIZATION OF LP-GAS
- Comparative Performance with other Fuels
- Appliance Installation and Testing
- Domestic Applications
- Commercial Applications
- Industrial Applications
- Enrichment, Peak Load and Standby Uses
- A Fuel for Internal Combustion Engines

DISTRIBUTION OF LP-GAS
- Installing and Servicing LP-Gas Systems
- Semi-Bulk Systems
- Bottled Gas Systems
- Gas Utility Service from Central Plants
- Multiple Utility Service from a Central Plant

REGULATIONS
- N.B.F.U. Pamphlet No. 58 (1947).
- Motor Carrier Regulations
- Freight Regulations
- Unloading Tank Cars
- Marine Regulations

APPENDIX
- LP-Gas Insurance
- Handy Tables for Field Use
- The Interchangeability of Other Fuel Gases with Natural Gases
- Flame Weeding
- Bibliography
- Glossary of Terms

THIRD EDITION

ORDER YOUR COPY TODAY **$7.50** PER COPY

We pay postage on orders accompanied by check or money order. In California add 23c for sales tax.

Orders from individuals must be accompanied by amount of purchase unless credit has been established.

Published by

BUTANE-PROPANE *News*

198 So. Alvarado Street
Los Angeles 4, California

W. R. THORNE

HARRY R. THOMAS

Stanolind Oil & Gas Co., Tulsa, now marketing LP-Gas to wholesalers and distributors from 22 plants located in six states, has named Harry R. Thomas as LP-Gas sales superintendent. Assisting him in the newly formed section will be W. R. Thorne as sales engineer.

Both men will be located in Stanolind's general offices in Tulsa.

Automatic Closing System Developed for Safer Transfer

A prime safeguard against possible accident at time of liquid transfer is the new automatic closing system for the main discharge valve on LP-Gas trucks, invented by V. E. LaGrange and being marketed nationally by Well Equipment Manufacturing Co. of Houston.

The safety control has been named "Weco-Trol" and it is designed to close the main discharge valve after a fuel delivery by automatically closing that valve when the operator disengages the power take-off. At the next delivery the valve automatically opens when the power take-off is engaged.

By keeping the valve closed when transfer is not going on, the Weco-Trol is said to eliminate danger of lost gas through a faulty valve or damaged hose or by the driver failing to close the main manually.

Automatic opening and closing of the valve result in from 20 to 30% time-saving on every delivery, it is stated.

Recently the Well Equipment Manufacturing Corp. sales organization in the southeastern and southern states have traveled by chartered bus to Lake Charles, La., to witness demonstrations of the new unit at the plant of Home Gas & Fuel Co., of which Mr. LaGrange is president. One unit has been in use by that company for two years, during which time it made 8111 stops to deliver 567,775 gals. of LP-Gas. The party was headed by H. J. Hagn and Tracy T. Word, Jr., general manager and sales manager, respectively, for Well Equipment.

This system will be on display at the LPGA trade show in Chicago, May 7-10.

Model delivery and service truck which will be given away by the Weatherhead Co. at LPGA convention May 9.

Model Truck To Be Given Away By Weatherhead at LPGA Show

Somewhere in the country there's a lucky LP-Gas retail marketer who is going to win the specially designed service and installation truck shown here during the LPGA convention and trade show at Chicago in May.

T. V. Scott, sales manager of the Weatherhead Co.'s LP-Gas equipment division, announces that Weatherhead will give the truck away free on May 9 at Chicago's Hotel Stevens. The drawing for the truck will be open only to retail marketers of LP-Gas. "Each company, regardless of size, will have an equal chance to win," said Mr. Scott, "because only one person from each company will be eligible for the drawing."

The truck was designed on a Ford F-4 chassis by an LP-Gas operator who has 28 years in the business. According to Mr. Scott, "this truck is finally the answer because of its compact arrangement for efficient

cylinder delivery and easily accessible equipment.

"Designed specifically with the bottled gas dealers' needs in mind, the truck is of the best weight and size for low-cost operation. Detailed information that will help any dealer build a truck with these advantages is available from Weatherhead upon request."

Why Winter Shortages? Asks LPGA Board

THE board of directors of the Liquefied Petroleum Gas Assn. met in Atlanta, Ga., March 19-20 for its regular quarterly session. Forty directors attended.

William H. Mix, Jr., of Martinsburg Gas Co., Martinsburg, W. Va., was elected director for West Virginia. He filled the vacancy created by the resignation of Edward P. Connell.

The appointment of a special committee for study of LP-Gas supply was approved by the board. Luke Abramson, Jr., will act as chairman. Other members include: Peter A. Anderson, Walter Miller, R. T. Goodwin, H. K. Strickler, K. W. Rugh, G. W. Bach, G. L. Brennan, Foster Mabee, J. L. Grigsby, Charles O. Russell, and W. R. Sidenfaden.

The committee is empowered to make a thorough study of the recurring shortage of winter fuel supply. The study will include all possible causes for short supply and will attempt to develop solutions.

A report of the membership committee stated that the association now has 1316 members. This includes 305 new members recently added to LPGA rolls.

Mark Anton, of the Defense Advisory Committee, reported that an LP-Gas industry committee has been appointed by the OPS and he expected a price regulation for LP-Gas would be issued soon.

In line with these activities, a resolution was adopted in which the board called upon all members of the industry to join with members of the LPGA and jointly support efforts of the board in its relations with various government agencies in order to make the work of the industry committee more effective.

The resolution requested that industry members—companies and individuals—refrain from distributing to the industry at large any private or unofficial interpretations of government orders, regulations or controls; but rather look to LPGA or the officials of government agencies involved for exact and official interpretation of orders, regulations, and controls affecting the industry.

NFPA Will Hear About Trailer Park Hazards

The National Fire Protection Assn.'s 55th annual meeting will be held at the Hotel Statler, Detroit, May 7-11, and will feature reports and speeches by fire authorities the world over. More than 1200 members and guests from 48 states and 50 nations are expected to attend.

Among the scores of subjects scheduled for consideration are several of special interest to the LP-Gas industry. During the Wednesday morning, May 9, session devoted to the Flammable Liquids, Gases and Hazardous Chemicals committee, a report by H. M. Robinson, Underwriters' Labs., Inc., Chicago, on "Trailer Parks" will be heard.

Leonard C. Lund, Fire Marshal Division, Insurance Dept., St. Paul,

All others.....1 year $4.00 ☐
2 years $7.00 ☐

CLIP THIS AND MAIL TODAY

if you are not a subscriber to

BUTANE-PROPANE NEWS

198 S. Alvarado St., Los Angeles 4, Calif.

SUBSCRIPTION ORDER

Enter my subscription to BUTANE-PROPANE NEWS to begin with the next issue.

☐ 1 year $2.00 ☐ Check enclosed

☐ 2 years $3.00 ☐ Please bill me

Standard Rates Apply to U.S. & Possessions, Canada and countries in the Pan American Postal Union.

COMPANY_____

NAME_____ POSITION_____

STREET _____ CITY _____ ZONE _____ STATE _____

will speak on "Farm Fire Protection," and Glenn Rowell of the Fire Underwriters' Inspection Bureau, Minneapolis, will report on "Agricultural Dehydrators and Driers" as part of the Thursday morning session on Municipal and Rural Fire Problems.

Important Topics Selected For Texas Management

Butane Management Institute concluded its second semester of classes based on management problems April 26 with the annual banquet at Austin, Texas.

The event sponsored by Texas Butane Dealers Assn., capped a curriculum featuring six courses, arranged by Plasco G. Moore, acting state supervisor of distributive education of the Texas Education Agency. The classes were set up as follows:

"How to Conduct Employe Meetings."

"Record Keeping for Profit."

"Operating Cost Analysis."

"How to Train an Employe."

"Insurance Coverage and Liability."

"Laws Affecting Butane Dealers."

Registration for the institute was conducted Sunday, April 23, followed by The Friendly Hour, first social gathering of the event. Luncheons for enrollees, instructors and guests were served daily at the hotel.

Mr. Moore reported that the institute was one of the largest and best received in recent years.

Associations

American Petroleum Institute

At the mid-year meeting of the division of refining, API, May 3, in Tulsa, the afternoon session will fea-

ture liquefied petroleum gas as a motor fuel.

Speakers and their subjects include:

Eugene S. Corner, Standard Oil Development Co., and E. H. Berg, Esso Standard Oil Co., New York, "The Relative Economics of LPG, Gasoline and Diesel Fuel in Trucks and Buses."

Howard E. Felt, Warren Petroleum Corp., Tulsa, "LPG Distribution."

R. C. Alden, director of research, Phillips Petroleum Co., Bartlesville, "LPG Availability."

Robert S. Lee, Twin Coach Co., Kent, Ohio, "Use of LPG in Intracity Buses."

Ernest Fannin, Fannin's Gas & Equipment Co., Phoenix, "The Use of LPG as Tractor Fuel."

California

Dealers attending the annual convention of the Liquid Gas Dealers Assn. of California in Bakersfield on May 11-12 will see live demonstrations of trucks, tractors, pumps, and other farm implements using LP-Gas for power, according to word from the office of the executive secretary, George W. Requa.

The Bakersfield Inn will be the meeting place. Dealers have been asked to invite friends from allied trades to attend the gathering, and to bring their mechanics, servicemen, salesmen, etc.

Association members working on program arrangements include J. W. Guffey, L. D. Wallace, Harry Horn, and Bill Andrews.

LPGA District 2

Los Angeles and San Francisco meetings of LPGA District 2 are planned in the near future, according to Ben Marsh, West Coast secretary.

The Los Angeles meeting will take

place Friday, June 1, at the auditorium of the Southern California Gas Co. It is planned to have Howard D. White, executive vice president of the association, now stationed in Washington, speak at the meeting. Reports of the national committee will also be presented.

The San Francisco meeting, Friday, July 13, will take place at the Western Merchandise Mart. The date will just precede the July 16-20 dates of the annual summer market exposition where all the latest appliances will be displayed. Program arrangements will be announced shortly.

Minnesota

The April 16-17 meeting of the Minnesota Petroleum Gas Assn. was cancelled, according to John L. Locke, vice president, due to the fact that the legislature was still in session and an unexpected mix-up in dates.

Future dates of the meeting will be announced soon.

Mississippi

Lewis Graeber, Jr.

With over 250 industry members in attendance, the Mississippi LP-Gas Dealers Assn. held its annual convention at the Edgewater Gulf hotel in Biloxi on April 1-3. President Lewis Graeber, Jr., of Marks, presided.

An outstanding program was presented, featuring such speakers as K. W. Rugh, Phillips Petroleum Co.; Charles Corken, Corken's, Inc., Oklahoma City; Forest Hall, Chambers Corp., Dallas; Vernon Beals, Beals Advertising Co.,

Oklahoma City; John H. Allen, director of the liquefied compressed gas division of the state of Mississippi; and Jeff Williams, Chickasha, Okla.

New England District

The Hotel Bradford, Boston, was the scene of the annual meeting of the Liquefied Petroleum Gas Assn. of New England on April 10, according to Louis S. Davis, district secretary.

Frank B. Mehaffey, of Suburban Gas Corp., Hyannis, Mass., was elected president of the group. He was treasurer last year.

In addition to election of officers, the program featured a discussion on the "Washington Outlook" by Howard D. White, LPGA's Washington representative. A panel discussion of various industry problems was presided over by Bob Sahagen, as moderator, and H. Emerson Thomas, Lou Wenzel, Walter Hoagland, and George Kelley as members of the group. The panel answered questions on sales, service, safety, installation, equipment, and appliances submitted earlier by dealers.

Presiding at the meeting was Plumer E. Pope, president of the group. The social part of the meeting included a cocktail hour and a banquet.

San Joaquin Valley (California)

Members of the California Liquefied Petroleum Gas Assn., of the San Joaquin Valley, will meet May 8 at the Hotel Fresno, Fresno, Calif., for an afternoon demonstration of the liquid and vapor types of carburetion. The demonstration will be followed by dinner and an evening meeting.

George Hayes is president of the group; Bob Blair is secretary.